Translational Medicine: Doing the Right Research Right

Eureka Institute and Science in Transition

Utrecht Summerschool Course 2019

July 7th – 12th 2019
Utrecht, The Netherlands
Dear participant,

It is with great pleasure that I welcome you to the summerschool course about translational medicine. Translational medicine is at the heart of biomedical research but doesn’t always get the appreciation it deserves. UMC Utrecht plays a significant role in fueling the debate about the relative under-appreciation of bench-to-bedside research, which is part of a larger Dutch and international debate about relevance, that is impact and quality, of biomedical research. This is very much in line with the broader shift towards Open Science, aiming for responsible research practices. With the Science in Transition initiative, rooted in UMC Utrecht and that started in 2013 we pointed to the incentive and reward system of biomedical science that may push researchers into valuing publications, in peer-reviewed journals more than efforts to bring results from the laboratory into clinical practice. The challenge of course is to understand why this is and how to change it.

With this summer school course UMC Utrecht takes its responsibility to aim for the next level in biomedical research and innovation. Like in the clinic we don’t stop after making the diagnosis, we are devising therapy and trying treatments as well. As we see it, educating a new generation, aspiring translational researchers is part of the solution. Therefore, with this summer school you will not only obtain insight in how science really works, but more importantly, you will acquire knowledge on how to be a successful translational researcher yourself. This course is specifically not about learning how to ‘play the game’, but about understanding that there is a game going on, what the rules of the game are and to be able to transcend it. You will be informed about the latest developments in translational medicine, inspired by rare diseases, and you will develop professional skills that are essential to becoming a translational researcher. I wish you an inspiring week and I hope the course will be of great importance and guidance for your future as a biomedical professional who wants to impact the lives of patients.

Professor Frank Miedema
Vice Rector Research, chair of Open Science Programme, Utrecht University
Former dean of UMC Utrecht
Dear participant,

It is with a mix of pride, great expectations and trepidation that I welcome you to the course “Translational Medicine: Doing the Right Research Right”, an offering of the Utrecht University as a part of its Summer School and at the same time an initiative which is inspired by and is an integral part of the Eureka Institute for Translational Medicine. Our objective is not to provide you with certainties or burden you with pre-digested knowledge, but rather to inspire you questioning your own notions and hopefully gently shake their foundation.

What we seek is what you seek: to shorten the distance between the unmet need and its solution by inspiring and catalyzing a copernican revolution in Medicine, one which puts patients in the center of the process, one which will truly make a difference in the way we conceive and practice in our respective fields.

The needs are particularly poignant and the opportunities tantalizing in the area of Rare Diseases. Indeed, Rare Diseases are often neglected by Pharma and Science alike, and, too often, also by Society. The tools available are often inadequate, the number of patients insufficient, the critical mass unappealing. Yet, Rare Diseases have contributed to Translational Medicine in a creatively disproportionate fashion.

You will have the opportunity to forge a new vision of Translational Medicine, one where study design, clinical and scientific questions, even policies, are molded around the Patient.

We welcome you to the Eureka community. Our best wish is that your enthusiasm, creativity and energy will help propel all of us, together, toward new horizons, in the sole interest of the advancement of Medicine.

Prof. Salvatore Albani, MD, PhD
President EUREKA Institute
Director, SingHealth Translational Immunology and Inflammation Centre
Faculty Roster - July 2019

Salvatore Albani, MD, PhD  
Professor, Duke-NUS Medical, School Singapore, Director, Translational Immunology Institute, UCAN-A Chair, President, Eureka Institute

Jeffrey Beekman, PhD  
Associate Professor, Dep. Of Paediatric Pulmonology/Regenerative Medicine Center, UMC Utrecht

Colby Benari  
Head of the Academic Careers Office, University College London

Rinze Benedictus, MSc  
Staff advisor UMC Utrecht & Science in Transition, UMC Utrecht

Kors van der Ent, MD, PhD  
Professor in Paediatric Pulmonology and director of the Child Health program of the UMC Utrecht

Richard Foty, PhD  
Assistant Professor, Translational Research Program, Institute of Medical Science, Faculty of Medicine, Dalla Lana School of Public Health, University of Toronto

Sabine Fuchs, MD, PhD  
Pediatrician in metabolic diseases at the Wilhelmina Children’s Hospital/UMC Utrecht

Pat Furlong  
Founding President and CEO, of Parent Project Muscular, Dystrophy

Johan Garssen, PhD  
Professor Immunopharmacology, Utrecht University, Head Division of Pharmacology at Utrecht Institute for Pharmaceutical Sciences  
Director Immune, Global Centre of Excellence, Danone/Nutricia Research

Brian Goeltzenleuchter, MFA  
Artist, Faculty Fellow, The Weber Honors College,Research Fellow, The Institute of Public and Urban Affairs, San Diego State University

Gianfranco Grompone, PhD, Engineer  
Discovery Nutrition & health science leader at Lesaffre International, France

Arno Hoes, MD, PhD  
Dean and Vice President of the Board, professor of Clinical Epidemiology and General Practice at Utrecht University/UMC Utrecht

Roos de Jonge, PhD  
Advisor patient participation, Education Centre, UMC Utrecht

Farah Kools  
Moderator E-learning - PhD Candidate Innovation in Translational Research and Biomedical Education, Centre of Education and Training, Department of Biomedical Sciences, UMC Utrecht

Belinda van ’t Land, PhD  
Senior Scientist Immunology at Nutricia Research, Utrecht

Julie G. Ledford, PhD  
Associate Professor of Cellular & Molecular Medicine, Member, Clinical Translational Sciences  
Member, Asthma and Airways Disease Research Center, Member, BIOS Institute, College of Medicine Tucson, The University of Arizona

Jorg van Loosdrecht, PhD  
Associate Professor, Laboratory of Translational Immunology, UMC Utrecht

Frank Miedema, PhD  
Vice Rector Research University of Utrecht and UMC Utrecht, Chair UU Open Science Programme

Marc van Mil, MSc, PhD  
Biomedical Science educator, educational innovator, Education Centre, UMC Utrecht

Joris van Montfrans, MD, PhD  
Pediatrician – Immunologist, Division Pediatrics, Wilhelmina Children’s Hospital/UMC Utrecht

Kiran Nistala, MD, PhD  
Discovery Medicine Group Leader, GSK, London, United Kingdom

Berent Prakken, MD, PhD  
Vice-dean and director of the biomedical education center at the UMC Utrecht, Professor of pediatric immunology at the Wilhelmina Children’s Hospital/UMC Utrecht, chair UCAN-U

Harold van Rijen, PhD  
Director of the Utrecht University Graduate School of Life Sciences. Program director of the Master Biomedical Sciences. Professor of Innovation in Biomedical Education.

Norman Rosenblum MD, FRCPC  
Professor of Paediatrics, Physiology, and Laboratory Medicine and Pathobiology; Tier I Canada Research Chair in developmental Nephrology; SickKids and University of Toronto; Scientific Director, CIHR Institute of Nutrition, Metabolism and Diabetes (INMD)

Hester den Ruijter, PhD  
Translational scientist at the Laboratory of Experimental Cardiology, UMC Utrecht

Salmaan Sana  
Educational Program Designer, Facilitator – Consultant, Meaningful Learning Specialist

Casper Schoemaker, PhD  
Senior researcher and project leader at the National Institute for Public Health and the Environment (RIVM), the Netherlands/  
Advisor patient participation in research at the Wilhelmina Children’s Hospital/UMC Utrecht, the Netherlands

Anita Small, MSc, EdD  
Founder and owner of Small, Language Connections

Anna van Suchtelen, MA  
Artist, Writer

Michael S. Taccone, MD, PhD (Candidate)  
Founder & CEO, Childhood Cancer Survivor Canada, Neurosurgery Resident, University of Ottawa, Vanier Canada Scholar, University of Toronto

Ghislaine van Thiel, PhD  
Associate Professor at the Julius Center for Health Sciences and Primary Care of the UMC Utrecht

Bas Vastert, MD, PhD  
Pediatric rheumatologist at the Wilhelmina Children’s Hospital, UMC Utrecht

Wouter Veldhuis, MD, PhD  
Radiologist at the UMC Utrecht

Lucy Wedderburn, MD, PhD  
Professor and Consultant of Paediatric Rheumatology, Director, Arthritis Research UK Centre for Adolescent Rheumatology at UCL, UCLH and GOSH,Deputy Lead Infection, Immunity, Inflammation, UCL GOS Institute of Child Health

Nico Wulffraat, MD, PhD  
Professor of Pediatric Immunology, UMC Utrecht, Chair Research and Education Division Pediatrics, chair UCAN CAN-DU
Organization
EUREKA Institute for Translational Medicine (www.eurekainstitute.org)
Science in Transition (www.scienceintransition.nl/)
Child Health (www.umcutrecht.nl/en/Research/Research-programs/Child-Health)
Apollo Society (www.apollosociety.eu/)

Organizing committee
Rinze Benedictus
Sabine Fuchs
Marc van Mil
Joris van Montfrans
Berent Prakken
Erica Roks
Norm Rosenblum
Anita Small

Core Faculty
Rinze Benedictus
Richard Foty
Sabine Fuchs
Gianfranco Grompone
Julie Ledford
Jorg van Loosdregt
Marc van Mil
Joris van Montfrans
Norm Rosenblum
Berent Prakken
Hester den Ruijter
Anita Small
Michael Taccone
Bas Vastert

Supporting Faculty
Emily Robinson (University College London)

Course Coordination
Erica Roks

E-learning module
Farah Kools
Berent Prakken
Nienke Verdonk (Elevate Health)

Evaluations
Jean Xie Huijuan (Duke-NUS Medical School)

Photography
Ralph van Beek (front page)
Thirza Luijten (images of all venues and footage of previous summer schools)

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3584 CG Utrecht
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Email: eroks@umcutrecht.nl

More information on Translational Medicine at UMC Utrecht:
www.umcutrecht.nl/tm

Why translational medicine fails – and what to do about it
Eureka Institute and Science in Transition
Utrecht Summerschool
Janskerkhof 30a
3512 BN Utrecht
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Email: summerschool@uu.nl

More information on Translational Medicine at UMC Utrecht:
www.umcutrecht.nl/tm
Sunday July 7th
Location: Social Impact Factory
Vredenburg 40
3511 BD Utrecht

Monday July 8th
Location: Matthias van Geuns building
Descartes-Centre, 11th Floor,
Bolognalaan 48
3584 CJ Utrecht

Tuesday July 9th
Location: Nutricia Research
Utrecht Science Park
meeting room Plaza 12
Uppsalalaan 12
3584 CT Utrecht

Wednesday July 10th
Location: Landgoed Oostbroek
meeting room: Janssenzaal,
Bunnikseweg 39
3732 HV De Bilt

Thursday July 11th & Friday July 12th
Location: Matthias van Geuns building
Descartes-Centre, 11th Floor,
Bolognalaan 48
3584 CJ Utrecht
Translational Medicine: Doing the Right Research Right

The UMC Utrecht is a center of excellence and has the formal position to deliver specialized care (so-called ‘topreferente zorg’). Continuous improvement of high quality of care can only be achieved by high standards of scientific research and a clear focus on specific disease areas.

All diseases in focus of the Child Health program are characterized by their influence on the individuals’ entire lifespan. These disorders often start at the beginning of life, or even before birth, and can have consequences far into adulthood. Within the Child Health program the ‘Cycle of Life’ approach is strongly intertwined with the so called ‘Cycle of Innovation’. In this ‘Cycle of Innovation’ ambitious interdisciplinary teams of patients, clinicians and investigators – from bench to bedside to society – strive to develop and implement novel approaches for treatment, (early) diagnosis, prognosis and monitoring of children with chronic diseases to fulfill unmet medical and psychosocial needs, to improve the lives of these children and their relatives. Both cycles interact at any moment in our hospital.

The Child Health program links top referent care for pediatric patient groups to interdisciplinary research from fundamental to translational to longitudinal applied medical research. All chronic diseases in focus of the Child Health program share that they start in early beginning of life and can have consequences far into adulthood. These patient-focus areas are: periconceptional, ante- and perinatal damage, congenital and hereditary disorders, severe inflammatory disorders and oncology.

About the course
Awareness, inspiration and training is what this course offers. Key opinion leaders increase your awareness of how science really works and how this shapes translational medicine. International experts provide you with a behind-the-scenes look at some of translational medicine’s success stories. Excellent teachers will train you to become a successful translational researcher yourself, to make a difference in the field, with ample time for personal coaching and mentoring.

About the research program ‘Child Health’
The UMC Utrecht is a center of excellence and has the formal position to deliver specialized care (so-called ‘topreferente zorg’). Continuous improvement of high quality of care can only be achieved by high standards of scientific research and a clear focus on specific disease areas.

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The Dutch Heart Foundation
The Dutch Heart Foundation (DHF) invests in basic clinical and translational research in the domain of cardiovascular diseases. Research consortia are stimulated to invest in the development of “translational skills” of young research talents. In one of the DHF private-public consortia, entitled CIRCA, we aim for the development of a device that can facilitate the early diagnosis of cardiac ischemia. This consortium also received a grant from the foundation that provides the opportunity to train young research talents in translational medicine. For the duration of three years 4-5 talented researchers are sponsored to join the Eureka Summerschool with generous support of the Dutch Heart Foundation.

Apollo Society
Apollo is an international collaborative project between the EUREKA institute and its partner universities with the aim of supporting students to develop the knowledge, skills, and experience that will support a career in the field of translational medicine. Apollo was founded mid-2014 in Utrecht. It was named after the multifaceted Greek god of medicine. Apollo aims to bring together multifaceted medical students and scholars. We want our members to be a group of diverse individuals who stand out by means of their personality, work ethic, research experiences and their aim to be a leader in the field of translational medicine.

www.apollosociety.eu
In 2013 the then-dean of the UMC Utrecht started a nationwide debate under the header 'Science in Transition' about the way incentives and rewards in science shape our knowledge production. The Science in Transition initiators describe how science has become a self-referential system where quality is measured mostly in bibliometric parameters and where societal relevance is undervalued. At the UMC Utrecht we have brought our research evaluation practices in line with our mission towards societal impact ‘Fewer numbers, better science’.

It made the UMC Utrecht an early adopter of a change that since then has gained momentum in The Netherlands and beyond, especially in the European Union. It has evolved into a push for Open Science, which entails a new way of doing science, with openness of data, results and the research agenda as a central ambition. In The Netherlands this lead to National Plan Open Science which has been embraced by the national research council (NWO), the medical research council (ZonMw), the association of universities (VSNU), the royal academy of sciences (KNAW) and the federation of UMC’s (NFU). In 2019 the main Dutch research funders signed the San Francisco Declaration on Research Assessment and presented measures to stimulate responsible research evaluation.

PATHWAY – International career pathways and online curriculum for clinician-scientists

Within the field of translational medicine many initiatives recognize the delicate balance between biomedical research and patient care. In bridging the gap between bench and bedside, clinician-scientists play an essential role. Over the last decades however, it has become increasingly difficult to successfully carry out that role. A strategic partnership between UMC Utrecht, Nutricia Research, University College London, Granada Medical School, and Ghent University aims to do something about that. PATHWAY is an Erasmus+ funded project active from 2017 to 2020. Its main objective is to create efficient, sustainable, and attractive career pathways for clinician-scientists thereby retaining them in the academic and industrial workforce, utilizing their unique set of skills to ultimately push translational medicine forward. Farah Kools (MSc) will be representing the PATHWAY project during the course.

Translational Creativity

Anna van Suchtelen and Brian Goeltzenleuchter are internationally respected artists who have a long history of collaboration. Since 2011, they work for Eureka Institute for Translational Medicine, first as artists-in-residence, and later as part of the faculty for the program Eureka Translational Creativity, developed to complement Eureka’s education and community building initiatives. For Utrecht Summer School 2018, Anna van Suchtelen and Brian Goeltzenleuchter have created an Applied Creativity workshop. Applied Creativity is a practical, yet academically vetted approach to creative process, designed for scientists and medical practitioners who strive to embrace the uncertainty that comes with collaborative and interdisciplinary learning and doing. Central to this approach is the idea that creativity is not a talent that one either has or does not have; rather it is a disposition that can be engaged and disengaged as needed to generate ideas, solve problems, build networks, facilitate collaboration, and assist in team-building. By means of concise lectures, discussions, and hands-on group projects, the tone of this course shifts between the comical, the philosophical, and the therapeutic.

Science in Transition to Open Science @ UMC Utrecht

In 2013 the then-dean of the UMC Utrecht started a nationwide debate under the header ‘Science in Transition’ about the way incentives and rewards in science shape our knowledge production. The Science in Transition initiators describe how science has become a self-referential system where quality is measured mostly in bibliometric parameters and where societal relevance is undervalued. At the UMC Utrecht we have brought our research evaluation practices in line with our mission towards societal impact ‘Fewer numbers, better science’.

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Eureka Institute

The Eureka Institute is a non for profit institute founded by an international group of leaders in translational medicine, educators, and institutional administrators. Eureka's mission is to develop a community of translational medicine professionals equipped to catalyze the application of discoveries for the benefit of human health. The institute does this through education and building a community of translational scientists. Among the activities of Eureka are a yearly certificate leaderships course in translational medicine in Siracusa Italy. The next certificate course will be March 29th – April 4th, 2020. Eureka partners with major universities worldwide: Duke/NUS, SingHealth; Stanford University, University of Miami, University of Arizona and the UMC Utrecht. Nutricia Research and University College London are supporters of Eureka.

www.eurekainstitute.org
Day-to-day program

Eureka’s 4th Summer School course “Translational Medicine: Doing the Right Research Right”
07.07.2019-12.07.2019

Course Executive: Rinze Benedictus, Sabine Fuchs, Marc van Mil, Joris van Montfrans, Norm Rosenblum
Course Director: Berent Prakken
Course Coordinator: Erica Roks
E-mail: eroks@umcutrecht.nl
Day-to-day program

Sunday July 7th
Location: Social Impact Factory
Vredenburg 40
3511 BD Utrecht
Sunday, July 7th  
Location: Social Impact Factory, Vredenburg 40, 3511 BD Utrecht

On this first day of the course you will get to know each other. The opening lecture will show the importance of parent participation in research. Furthermore you learn about the main issues in translational medicine and how to become an agent of change in translational medicine.

Chair of the day: Rinze Benedictus

<table>
<thead>
<tr>
<th>Time</th>
<th>Title &amp; speakers</th>
<th>Activity</th>
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<tbody>
<tr>
<td>10.30</td>
<td>Coffee</td>
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<tr>
<td>10.45</td>
<td><strong>Welcome</strong> by Frank Miedema (Vice Rector) on behalf of Utrecht University</td>
<td>Plenary session</td>
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<td>11.00-12.30</td>
<td><strong>Team introduction and welcome</strong> by Norm Rosenblum</td>
<td>Group activity</td>
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<tr>
<td>12.30-13.00</td>
<td><strong>Introduction of the Program</strong> by Sabine Fuchs and Berent Prakken</td>
<td>Plenary session</td>
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<td>13.00-14.00</td>
<td>Lunch</td>
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<tr>
<td>14.00-14.45</td>
<td>Opening lecture “<strong>Parent Project Muscular Dystrophy: how parents shaped the research agenda</strong>” by Pat Furlong</td>
<td>Plenary session</td>
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**Abstract**

Patients and family members, when faced with a catastrophic diagnosis (rare or otherwise) feel isolated and alone. The dreams and plans for the life they imagined are gone. Parents with sick children feel as if they have failed parenthood, no longer able to ‘fix’ things or dry every tear. As parents, we have few choices and by default, necessarily become an advocate. We search the internet, sign up for Google alerts, connect on FB and Twitter. We join registries or develop new ways to collect qualitative and quantitative data. We travel across the world to identify physicians with expertise and interdisciplinary care. We solicit interested researchers to characterize the disease of interest. We start foundations, partner with industry and fund start-up companies. We become caregivers, caretakers, investors and partners. We are the new generation: Citizen Scientists. We educate family, extended family, school, community and every individual that crosses our path. We learn the language of science, drug development and medicine. We drive regulatory change and healthcare policy. We are aggressive, fearless and effective. Our only interest is to change the world.

**Learning objectives**

- Discuss the trajectory of a pediatric rare disease diagnosis
- Identify opportunities and time points for intervention, support, engagement
- Discuss the ecosystem of rare diseases and opportunities for partnership between healthcare professionals, researchers, parents/family members and the biopharmaceutical industry

14.45-15.00 | **Resilience Break** by Gianfranco Grompone                                  | Professional skills |
15.00-17.15 | **Becoming agents of change in TM. Interactive session facilitated by Salmaan Sana** | Professional skills |

**Learning objectives**

- Gain insight to how connect with others on a deeper level.
- Develop awareness of one’s motivation to do their work.
- Finding a way to convert frustrations in to something constructive within TM
- Define the things that gives energy with respect to TM
- Understand how to construct one’s own “change” question in relation to TM

The participants will be put to work to see and asked to challenge themselves and take leadership on their own struggles and wishes with TM in their own context.

17.15-18.00 | Drinks and bites                                                             |                    |
Day-to-day program

Monday, July 8th

Location: Matthias van Geuns building
Descartes-Centre, 11th Floor,
Bolognalaan 48
3584 CJ Utrecht
### Monday, July 8th

Location: Descartes-Centre, 11th Floor, Matthias van Geuns building, Bolognalaan 48, 3584 CJ Utrecht

On the second day we continue to explore issues in translational medicine and think about the translational scientist of the future. You will start your group assignment and have your first personal mentoring session as well. At the end of the day you will be introduced to UMC Utrecht’s Child Health program, followed by drinks, bites and a tour of the Wilhelmina Children’s Hospital.

Chair of the day: Michael Taccone

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>8.15-8.30</td>
<td>Coffee</td>
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<tr>
<td>8.30-9.00</td>
<td>Feedback and reflection</td>
<td>Professional skills</td>
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<td></td>
<td>Personal and interactive session, facilitated by Joris van Montfrans</td>
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<tr>
<td>9.00-9.45</td>
<td>Understanding how science really works by Frank Miedema. A ‘view from the trenches’ about the scientific method and associated myths.</td>
<td>Interactive plenary lecture</td>
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<td>Learning objectives</td>
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<td>• Students will get insight into how modern science works as a social system.</td>
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<td>• Students will be able to reflect upon their own role, expectations and the potential actions they may want to make to achieve their personal goals as a scientist.</td>
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<td>• Students will understand what open science could mean for their personal career perspective</td>
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<td>10.00-10.30</td>
<td>Coffee break</td>
<td>Group assignment</td>
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<tr>
<td>10.30-11.00</td>
<td>Introduction to Project Prometheus: From culturing cells to nurturing health</td>
<td>Group assignment</td>
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<td>Facilitator: Sabine Fuchs</td>
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<td>Learning objectives</td>
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<td></td>
<td>• Get to know the road from bench to bedside guided by a real-life case in a rare disease</td>
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<td></td>
<td>• Practice collaborating over disciplines and cultures</td>
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<tr>
<td>11.00-12.30</td>
<td>Project Prometheus part 1: Start a translational medicine research proposal</td>
<td>Group assignment</td>
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<td></td>
<td>Facilitators: Sabine Fuchs, Rinze Benedictus</td>
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<tr>
<td>12.30-13.15</td>
<td>Lunch</td>
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<tr>
<td>13.15-14.00</td>
<td>How to become a translational scientist and introduction to Eureka</td>
<td>Interactive plenary lecture</td>
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<td></td>
<td>Interactive lecture on the challenges of translational medicine and the role of the translational scientist. Facilitator: Joris van Montfrans</td>
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<td>Learning objectives</td>
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<td></td>
<td>• Analyze the challenges of translational medicine</td>
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<td>• Discuss what it takes to become a translational scientist</td>
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<tr>
<td>14.15-15.15</td>
<td>Building an international career in translational medicine</td>
<td>Parallel session</td>
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<tr>
<td></td>
<td>by Lucy Wedderburn</td>
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<td>Learning objectives</td>
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<tr>
<td></td>
<td>• To review the challenges of successful international career in translational science</td>
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<td></td>
<td>• To learn about some methods for successful international collaborations</td>
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### Day-to-day program

#### Monday, July 8th

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<tr>
<td>14.15-15.15</td>
<td><strong>Advancing healthcare worldwide through translational medicine</strong>&lt;br&gt;By Richard Foty</td>
<td>Parallel session</td>
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<td></td>
<td><strong>Learning objectives</strong></td>
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<tr>
<td></td>
<td>• Challenge our current definition of ‘health’</td>
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<td></td>
<td>• Understand the importance of identifying and understanding unmet health needs prior to undertaking a research project</td>
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<td></td>
<td>• Present a simple framework to assist in the identification of unmet health needs and discuss the importance of co-creation in all stages of translation.</td>
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<tr>
<td>15.15-15.30</td>
<td><strong>How to build a bridge within your own organization – networking</strong>&lt;br&gt;By Hester den Ruijter &amp; Julie Ledford</td>
<td>Parallel session</td>
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<td></td>
<td><strong>Learning objectives</strong></td>
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<tr>
<td></td>
<td>• Be able to introduce effectively – and tell your story</td>
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<td></td>
<td>• Design your own unique pitch</td>
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<td></td>
<td>• Identifying key team members</td>
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<tr>
<td>15.30-17.30</td>
<td><strong>Resilience break &amp; Coffee</strong>&lt;br&gt;by Gianfranco Grompone</td>
<td>Professional skills</td>
</tr>
<tr>
<td>17.30-19.30</td>
<td><strong>Personal mentoring part 1</strong>&lt;br&gt;Take the time to share and discuss personal dilemmas with trusted and experienced senior researchers</td>
<td>Professional skills</td>
</tr>
<tr>
<td>17.30-19.30</td>
<td><strong>Introduction to the Child Health program by Kors van der Ent (18.00) Followed by Drinks, Bites &amp; Tour of Children’s Hospital and networking event:</strong>&lt;br&gt;- meeting point: ‘restaurant of the Wilhelmina Children’s Hospital (15 min walk from the UMC Utrecht Descartes Centre)</td>
<td>UMC Utrecht - Wilhelmina Children’s Hospital</td>
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</tbody>
</table>
Day-to-day program

Tuesday, July 9th

Location: Nutricia Research
Utrecht Science Park
meeting room Plaza 12
Uppsalalaan 12
3584 CT Utrecht
### Tuesday, July 9th

Location: Danone Nutricia Research (morning),
Utrecht Science Park, Uppsalalaan 12, 3584 CT Utrecht

David de Wied Building (afternoon),
Universiteitsweg 99, 3584 CG Utrecht

Today, at the highly innovative Nutricia research building at the campus of the University of Utrecht, you will learn to appreciate the difficulties of patenting, the roles of industry and academia in drug development and contemplate the challenges and opportunities of public private partnerships. You will also have part 2 of your personal mentoring groups.

**Chair of the day: Bea van ’t Land**

<table>
<thead>
<tr>
<th>Time</th>
<th>Title &amp; speakers</th>
<th>Activity</th>
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</thead>
<tbody>
<tr>
<td>8.15</td>
<td>Get together at meeting point at the entrance Hall of the Nutricia Research facility</td>
<td>Interactive lectures and plenary sessions</td>
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<td></td>
<td>PLEASE BRING YOUR ID, you will be asked to show it at the reception of Danone Nutricia Research</td>
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<tr>
<td>8.30</td>
<td>Introduction to the Nutricia Research Facility</td>
<td>Interactive lectures and plenary sessions</td>
</tr>
<tr>
<td></td>
<td>by Bea van ’t Land</td>
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<tr>
<td>8.45-9.15</td>
<td>Feedback and reflection</td>
<td>Professional skills</td>
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<tr>
<td></td>
<td>Personal and interactive session, facilitated by Anita Small and Joris van Montfrans</td>
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<tr>
<td>9.15-9.20</td>
<td>Welcome by professor Johan Garssen</td>
<td>Interactive lectures and plenary sessions</td>
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<tr>
<td>9.30-10.30</td>
<td>Smart Risk Taking- A journey from Academia to Industry</td>
<td>Key note lecture</td>
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<td>Interactive lecture by Kiran Nistala, Experimental Medicine Physician at GSK</td>
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<td><strong>Learning objects</strong></td>
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<td></td>
<td>• Students will understand the choices in pursuing a scientific or medical career in academia vs Pharmaceutical industry</td>
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<td></td>
<td>• Students will discuss and reflect on how we make decisions, as individuals and institutions</td>
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<tr>
<td>10.30-11.00</td>
<td>Resilience break &amp; Coffee by Norm Rosenblum</td>
<td>Professional skills</td>
</tr>
<tr>
<td>11.00-11.45</td>
<td>Protect what’s yours - in times of Open Science</td>
<td>Interactive lectures and plenary sessions</td>
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<td></td>
<td>Why protecting intellectual property is crucial to successful innovation and translational medicine. By Rinze Benedictus &amp; Kiran Nistala</td>
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<td><strong>Learning objectives</strong></td>
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<td></td>
<td>• Protected knowledge may be of interest for investors or companies since it will allow an exclusive right to market the product.</td>
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<td></td>
<td>• Understand the statement of an investor: “what you publish too fast may be too bad for the patient”</td>
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<td></td>
<td>• Appreciate how openness and innovation can go along too</td>
<td>Debate/Critical thinking</td>
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<tr>
<td>11.45-13.00</td>
<td>Lunch and tour of the facility – Bea van ’t Land</td>
<td>Professional skills</td>
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<td></td>
<td>Included guided tour to David de Wied building, lunch at DdW</td>
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<tr>
<td>13.00-13.45</td>
<td>Science is teamwork</td>
<td>Professional skills</td>
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<td></td>
<td>by Anita Small</td>
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<td></td>
<td>Build on your approach to resolving conflicts and learn collaboration frameworks. Incorporate these to work in the arena of shared interests to create effective translational medicine teams.</td>
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<td></td>
<td>Moderated by Berent Prakken</td>
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</table>
# Day-to-day program

## Tuesday, July 9th

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<thead>
<tr>
<th>Time</th>
<th>Title &amp; speakers</th>
<th>Activity</th>
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<tbody>
<tr>
<td>13.45 -14.30</td>
<td><strong>Navigating innovation between academia and industry</strong>&lt;br&gt;By Johan Garssen and Kiran Nistala&lt;br&gt;Moderators: Bea van ‘t Land &amp; Farah Kools</td>
<td>Moderated debate room M2.01</td>
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<tr>
<td></td>
<td><strong>Learning objectives</strong>&lt;br&gt;- Learn how you can connect Academia and Industry in your personal career&lt;br&gt;- Experience how different perspectives&lt;br&gt;- Discuss how you can play different roles without compromising your personal integrity</td>
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<tr>
<td>14.45-15.00</td>
<td><strong>Coffee / Tea</strong></td>
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<tr>
<td>15.00-15.15</td>
<td><strong>Introduction into Translational Creativity</strong>&lt;br&gt;By Anna van Suchtelen and Brian Goeltzenleuchter</td>
<td>Professional skills room 1.30</td>
</tr>
<tr>
<td>15.15-16.00</td>
<td><strong>Clinician Scientist, fit for the future?</strong>&lt;br&gt;Harold van Rijen</td>
<td>Professional skills room 1.30</td>
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<td></td>
<td><strong>Learning objectives</strong>&lt;br&gt;- Understand the paradigm shift in skills needed to be future proof and effective&lt;br&gt;- Discuss how to change education and training to be fit for the rapidly evolving future</td>
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</tr>
<tr>
<td>16.00-17.30</td>
<td><strong>Personal mentoring part 2</strong>&lt;br&gt;Take the time to share and discuss personal dilemmas with trusted and experienced senior researchers</td>
<td>Professional skills rooms 114, 116, 118, 120, 132, 136</td>
</tr>
<tr>
<td>17.30-19.00</td>
<td><strong>Welcoming drinks</strong> hosted by UMC Utrecht’s International Office, for summer school students only. Location: UMC Utrecht Education Centre, Hijmans van den Bergh building, 1st floor, near room 1.39</td>
<td>Universiteitsweg 98 3584 CX Utrecht</td>
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<tr>
<td>19.00</td>
<td><strong>Speaker’s dinner</strong> (faculty only)</td>
<td>Restaurant Mijnheer Buscourr, Lange Nieuwstraat 62, 3512 PL Utrecht</td>
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</tbody>
</table>
“Working together with this amazing inspiring group this week gives me a lot of new positive energy” Judith

“It all starts with an idea” Gautam Kok

“This Summer School has inspired me to perform only research that actually makes a difference, rather than just being interesting or advancing my career” Remi Stevelink

“For anybody who wants to become a translational researcher, the first and critical step to become one is to participate in this course. Thank you so much for the amazing and inspiring week” Janneke Peeters

“A Summer course that changes your life, not only professionally but also on personal basis!” Sabine van der Laan

“This Summer School has made me aware of translational medicine and it’s transition. I’ve not only learned much about this topic, I also learned more about myself as a translational researcher / MD. Thank you so much for this inspiring week!” Lynne Rumping

“I was inspired by the fact that established and successful scientists are taking the responsibility to help us change the current paradigm of science” Arthur van der Boog

“This course has challenged my understanding of true translational research. I am honored to carry the torch to Miami and promote translational medicine and the Apollo program to my peers.” Michelle Trojanowsky

“Be brave. Take risks. Nothing can substitute experience”

Participants Summer School 2016
Day-to-day program

Wednesday, July 10th

Location: Landgoed Oostbroek
meeting room: Janssenzaal,
Bunnikseweg 39
3732 HV De Bilt
Wednesday, July 10th
Location: Landgoed Oostbroek, meeting room Janssenzaal, Bunnikseweg 39, 3732 HV De Bilt

Today you will spend at a beautiful mansion just outside of the campus. There you will discover how to unleash your creativity and learn how to effectively work as a team and have true impact. In the afternoon you will learn more about collaboration and working with patients. You will be stimulated to critically contemplate how to effectively navigate from bench to bedside together with patients. You will learn how introducing the patient’s perspective can steer the direction of a research program and explore the importance of patient participation in crafting a socially robust and ethically sound research proposal. During the second half of the afternoon you will work on part 2 of your group assignment.

Chair of the day: Richard Foty

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<tr>
<th>Time</th>
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<tr>
<td>8.30-9.00</td>
<td>Coffee</td>
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<tr>
<td>9.00-9.30</td>
<td>Feedback and reflection: personal and interactive session by Anita Small and Joris van Montfrans</td>
<td>Professional skills</td>
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<tr>
<td>9.30-10.15</td>
<td>Towards Open Science and responsible research practices by Rinze Benedictus and Richard Foty</td>
<td>Interactive lecture</td>
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</table>

**Abstract**
In response to the debate about the systemic flaws of science, initiatives that foster open and responsible research practices have sprung up all over the world, ranging from local pilots to national research policies. Many of these initiatives start by raising awareness, but quite a few have the ambition to really change how science works. Together with the participants, Rinze Benedictus and Richard Foty will explore the moving science landscape and try to find out where we’re all heading.

**Learning objectives**
- Students will learn that on many levels science is changing
- Students will appreciate that changing a global system can start with local ambition

10.15-10.30 Coffee Break

10.30-13.15 Creativity & Science
Facilitators: Anna van Suchtelen and Brian Goeltzenleuchter

**Learning objectives**
- Recognize and develop your own creative potential, noting when it is most useful to engage as a tool for generating ideas and solving problems
- Apply knowledge of self to facilitate interpersonal communication and collaboration
- Demonstrate understanding of active learning, self-regulation, and metacognition and their value in the creative process
- Demonstrate knowledge of available resources, techniques, and high impact creative activities to catalyze goals and facilitate pathways

13.15-14.00 Lunch – reflection break

14.00-14.15 Introduction on the presentation workshop by Richard Foty

14.15-15.45 Project Prometheus part 2
Set the next step on the translational road and come up with a good design for a clinical trial

15.45-16.00 Coffee break
Translational Medicine: Doing the Right Research Right

Day-to-day program

Wednesday, July 10th

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<tr>
<th>Time</th>
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<tr>
<td>16.00-17.30</td>
<td><strong>Giving a voice to patients: how patients will help you to perform impactful research</strong>&lt;br&gt;Facilitators: Pat Furlong, Roos de Jonge, Casper Schoemaker, Michael Taccone</td>
<td>Group assignment</td>
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</table>

**Abstract**
An important prerequisite for impactful translational science is that patients and researchers work effectively together. Patients represent a diverse and experienced group of individuals with different backgrounds and experiences. A frequently made mistake is to underestimate the brainpower of patients and overestimate their understanding of our biomedical jargon language. This results in a mismatch between what patients want to see researched and the research that is actually done. This is a colossal lost opportunity. Can research priorities generated by patients solve this problem? In order to apply the specific expertise and power of patients, we need a common language and a truly bidirectional communication. In this session we will explore on how this can be done and how this can help you in your research.

**Learning objectives**
- To create awareness and understand the importance to involve patients in translational research
- To know and learn practical ways and means to actively involve patients in your research in order to improve your clinical and societal impact
Poem by Kate Webb, participant in 2018

Scared and tired and closed, we came
Translational research, all to gain
Everyone said “You have to go!”
It’s amazing, inspiring, what a show!”

A professor from Yale seemed very sweet
And then she yelled “LOUDER, MOVE YOUR FEET!”
I got palpitations saying my name
Starting to wish that I never came

Feelings, creativity, reflection and time
A kind and quiet guru
Are they messing with my mind?

Who are these people; so placid and calm?
Are they hiding the koolaid under an arm?

But then there’s the others
They’re sort of like me
I think they’ve got my back
I’ll have to check over tea

Scientist and doctors and thinkers all
(Also why is everyone so tall?)
Initially suspicious and shy we were
Now we’re the bestest of besties for sure

We’ve been to the woods
We all made it back
And now we’re an army ready to attack

The future of science, a better tomorrow
We’ll lead the way for others to follow
Efficient, ethical, sustainable, kind
We’re not afraid! No one left behind

You are ALL rockstars, and I think you know
Oh and oh the places you’ll go!

Thank you for sharing, your stories, your soul
Thank you for listening to my shaky goal

I’ll see you in journals and papers and grants
And leading new cures, ideas and arts

All with one key thought in mind
Its not for me, its not for you,
If for all of mankind.
Day-to-day program

Thursday, July 11th

Location: Matthias van Geuns building
Descartes-Centre, 11th Floor,
Bolognalaan 48
3584 CJ Utrecht
### Thursday, July 11th

Location: Descartes-Centre, 11th Floor, Matthias van Geuns building, Bolognalaan 48, 3584 CJ Utrecht

In the morning there will be 3 parallel session on mentoring, animal models in TM and translating Medical Imaging Diagnosis & Research towards AI. In the afternoon you will have an inspirational speed counseling session with a panel of established and upcoming clinical scientists. In the evening we will have the conference dinner with all participants and faculty in downtown Utrecht.

**Chair of the day: Julie Ledford**

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<td>8.30-9.00</td>
<td>Coffee</td>
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<td>9.00-9.30</td>
<td><strong>Feedback and reflection</strong></td>
<td>Professional skills</td>
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<td></td>
<td>Personal and interactive session, facilitated by Anita Small and Joris van Montfrans</td>
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<tr>
<td>9.30-10.30</td>
<td><strong>The importance of finding a good mentor</strong> – by Colby Benari</td>
<td>Parallel session</td>
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<td><strong>Learning objectives</strong></td>
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<tr>
<td></td>
<td>• Understand how to start a new mentoring relationship on the best footing</td>
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<td>• Successfully structure a mentoring conversation</td>
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<td>• Apply networking skills to find mentoring support</td>
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<td>9.30-10.30</td>
<td><strong>Animal models in TM</strong> – by Norm Rosenblum</td>
<td>Parallel session</td>
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<td><strong>Learning objectives</strong></td>
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<tr>
<td></td>
<td>• To discuss when, why, and how to use animal models</td>
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<td>• Explore the limitations of using animal models to model human disease</td>
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<td>• Understand the perspectives of stakeholders in the translational medicine itinerary regarding the use applicability of experimental models of human disease</td>
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<tr>
<td>9.30-10.30</td>
<td><strong>Professional experiences in translating Medical Imaging Diagnosis &amp; Research towards AI - or double-deep skills and the path you choose</strong> – by Wouter Veldhuis</td>
<td>Parallel session</td>
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<td><strong>Learning Objectives</strong></td>
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<tr>
<td></td>
<td>• Discuss how to identify and handle the challenges of bringing AI into healthcare</td>
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<td>• Learn the value of honing your skills and choosing the path that is right for you</td>
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<td>10.30-11.00</td>
<td>Coffee Break</td>
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<tr>
<td>11.00-12.30</td>
<td><strong>Presentation workshop</strong></td>
<td>Key note lecture</td>
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<td>12.30-13.30</td>
<td>Lunch</td>
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<td>13.30-14.00</td>
<td><strong>Three things that shaped my journey in translational medicine</strong> – by Salvo Albani</td>
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<tr>
<td>14.00-15.00</td>
<td><strong>Reflection break</strong> by Norm Rosenblum</td>
<td>Professional skills</td>
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<td>15.00-15.30</td>
<td>Coffee Break</td>
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<tr>
<td>15.30-17.00</td>
<td><strong>Inspirational speed counseling</strong> with a panel of established and upcoming clinical scientists</td>
<td>Professional skills</td>
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<tr>
<td>19.00</td>
<td><strong>Conference dinner – all participants &amp; faculty</strong></td>
<td>Restaurant</td>
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<td>Drieharingstraat 27</td>
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<td>3511 BH Utrecht</td>
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</table>
Day-to-day program

Friday, July 12th

Location: Matthias van Geuns building
Descartes-Centre, 11th Floor,
Bolognalaan 48
3584 CJ Utrecht
**Friday, July 12th**
Location: Descartes-Centre, 11th Floor, Matthias van Geuns building, Bolognalaan 48, 3584 CJ Utrecht

On this last day of the course you will think and debate important ethical issues and dilemmas in TM. And you will prepare yourself for your future in Translational Medicine. At the end of the day there will be a certificate ceremony, followed by farewell drinks and bites.

**Chair of the day: Gianfranco Grompone**

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<td>8.30-9.00</td>
<td><strong>Feedback and reflection</strong></td>
<td>Professional skills</td>
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<td></td>
<td>Joris van Montfrans and Anita Small</td>
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<tr>
<td>9.00-10.15</td>
<td><strong>Thou shalt not…</strong></td>
<td>Parallel session</td>
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<td>Interactive lecture on research integrity and ethics</td>
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<td>by Ghislaine van Thiel (assistant professor in medical ethics, UMC Utrecht)</td>
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**Learning objectives**
- Gain basic knowledge of research ethics, specifically on clinical trials involving children
- Learn to assess ethical complexities of contemporary pediatric research

| 9.00-10.15 | **What should I do?**          | Parallel session                   |
|           | Dilemma game about research integrity and publication pressure. |                                    |
|           | By Rinze Benedictus & Julie Ledford |                                    |

| 9.00-10.15 | **Speaking other’s people language** | Parallel session                   |
|           | By Gianfranco Grompone             |                                    |

**Abstract**
Communication to non-scientists, i.e. attorneys, journalists, potential investors, industry partners, is a key step in Translational Medicine (TM). Very often, when new data and discoveries show significant scientific relevance to fulfill unmet medical needs, either at the in vitro or preclinical level, exploring and confirming their translational potential by requesting non-scientists’ opinion and often actions, is crucial. This communication process requires stepping out from the lab and its comfort zone to a new environment defined by non-scientific criteria, namely market potential, patentability, social and economic impact, industrial reproducibility, among others. Mastering communication is then crucial in this process. In this session, we will explore tools and tips to develop specific skills and assets which might help TM scientists in their careers. We will focus on 2 concrete case examples which will support the relevance of speaking other’s people language. 1) moving from Academia to Industry and 2) bringing science to a large public audience in a radio broadcasting context. We will navigate the delicate balance between accurately describing the results to non-experts without “betraying” the science behind the data. Communicating to non-peers is a great opportunity for a translational scientist to “unlearn”, to embrace adaptive challenges, to generate novel insights and to explore how to alleviate stress and anxiety during the whole exercise by stimulating empathy and facilitating multi-disciplinary and multi-cultural collaboration. But most importantly, this process should allow scientists and non-scientists working together and have fun.

**Learning objectives**
By the end of this session, participants will be able to.
- Reflect on the concept of vulnerability when stepping out of their comfort zone.
- Translate their work to non-peers, large public and non-expert stakeholders for a specific purpose.
- Evaluate, create and define their own communication style.
- Provoke and maintain curiosity in the audience by engaging creativity. >>
Day-to-day program

Friday, July 12th

>> Preparation
• Look for information about the mythological Tower of Babel in Babylonia.

Pre-Session Thought Questions for Participants
• Explain your research topic to your grandmother/grandfather, or to a 5 years-old child.
• Make a list of the scientific terms and phrasings which are part of your day-to-day life.
• Look for clinical studies and/or scientific articles press releases in the media.

10.15-10.30 Coffee Break

10.30-11.30 How patients change our way of thinking
Nico Wulffraat (pediatrician)
Moderated by Michael Taccone

Learning objectives
• Which health related topics are relevant for children and parents?
• Which tools are available for the dialogue between children/parents and health professionals?

10.30-11.30 Discover your own style
Facilitated by Anita Small
Discover your personal communication style based on the Interactive Styles Questionnaire used by international mediators. Gain insight on your strengths in communication and problem solving to create successful teams with positive impact in translational medicine.

10.30-11.30 How to market your research as TM
by Julie Ledford

Abstract
As scientists, we all know how to describe our work to fellow scientists. However, as researchers in translational medicine, we have to repackage our “basic, mechanism-driven” research using model systems in such a way as to attract the attention of the medical field in order to secure funding. We need to understand how to step outside our own research bubble and look back at what we are really doing in the big picture through a different lens- and then pitch that to others! How will your research potentially alter or advance the treatment of human diseases?- this is the literal million-dollar question!

Learning objectives
• identifying your audience
• marketing your science

11.30-12.45 Project Prometheus – Finale
Interactive lectures and plenary sessions

12.45-13.45 Lunch

13.45-14.15 How to successfully fail: building a different mindset for TM
Gianfranco Grompone

Learning objectives
• Students will reflect on the concept of failure. what is failure and success in TM? They will explore individual and collective examples.
• How to progress through failure. discussion on how to create an open environment in TM which safely accepts failure.
• Reflect on the importance of “baby steps” in TM and provide insights to identify and celebrate them.
### Mind the gap early career steps as a translational scientist in North America
Julie Ledford & Michael Taccone

**Learning objectives**
- Realize that there are different paths to becoming a translational-scientist
- Combined training
- Start in medicine
- Start in basic science
- How can my training be funded?
- Early career milestones that will get you the job you want.
  - For a job in academia
  - For a job in industry
  - For a clinical job

### Mind the gap early career steps as a clinician scientist in Europe
Sabine Fuchs & Joris van Montfrans

**Learning objectives**
- To explore different options to merge clinical and research training in Europe
- To discuss challenges facing young clinician scientists and strategies to overcome them

### Responsible Research and Innovation
Interactive dialogue with Marc van Mil and Hester den Ruijter

**Learning objectives**
- How to bridge the gap between goals and reality in the real-world
- Reflect on the role of a translational scientist in relation to society

### A translational medicine success story. How organoids help solve clinical issues in cystic fibrosis
Jeffrey Beekman, associate professor at UMC Utrecht

**Abstract**
Translational medicine encompasses the translation of ideas into research and subsequent applications. Moving from concept to application requires a multidisciplinary approach, and usually takes a long breath. This lecture focusses on recent breakthroughs for the treatment of cystic fibrosis (CF), a monogenetic disease caused by dysfunction of a chloride channel in mucosal epithelia. Treatment of CF is shifting from symptom-targeted therapies to therapies that target the CF-causing mutant protein. Forbes magazine recognized the first CF-protein-targeting drug as ‘most important new drug in 2012’, and many new drugs are currently in development. Beekman and colleagues established and patented a novel individual test for CFTR modulators using individual adult stem cell cultures termed organoids. A collaborative effort enabled progression in 4 years from initial discovery to reimbursed ‘off-label’ treatments for the first people with CF. Starting as a principal investigator in 2010, Jeffrey Beekman will share some of the challenges encountered during this ‘translational success story’, particularly emphasizing on the process rather than the science.

**Learning objectives**
- To develop awareness of various stakeholders in a translational process
- To identify personal challenges in a translational process.

### Wrap up and certifications
Berent Prakken and Norm Rosenblum

### Evaluations
Joris van Montfrans and Anita Small

### Drinks and bites
Location to be announced
Faculty biographies

About the speakers and moderators
About the speakers and moderators

Salvatore Albani, MD, PhD, is an internationally renowned rheumatologist and immunologist. He is a Professor at Duke-NUS Medical School Singapore and Director of the Translational Immunology Institute at SingHealth-Duke-NUS Academic Medical Centre. Before joining Duke-NUS, Dr. Albani served as Director of the Translational Medicine Unit at the Clinical Investigation Institute at the University of California, San Diego, where he also was Professor of Medicine and Pediatrics. His fundamental research interest is in understanding human immunity and contributing the knowledge to therapeutic and diagnostic advancements. He has developed several innovative approaches in the area of induction and maintenance of immune tolerance in humans, being responsible for the whole translational process from idea to the conclusion of a Phase II clinical trial in autoimmune inflammatory diseases, which have a large impact on society and individuals. He has been responsible for conception and execution of each of the stages of this complex itinerary, which spans a wide and diverse gradient of technologies and challenges. These include molecular immunology, lead identification and validation, intellectual property, CMC (Chemistry, Manufacturing and Controls), IND (Investigational New Drug filings), trial design, data management and analysis, interfacing with Venture Capital and Pharma, leading complex groups in a multi-center setting, etc. The technology platform has applications in diseases that could benefit from a restoration of immune tolerance. This translational research itinerary has been the original backbone of his career, and witnessed by a rich publication trail (among others Nature Medicine, Lancet, JCI, PNAS, Nature Rheumatology, A&;R, ARD, etc, H factor 40) and by approximately 100 patents. Development of high throughput technology platforms is also part of his scientific career. These platforms aim to provide tools for knowledge-based diagnostic and therapeutic decisions. In his role as an educator, it has been his privilege to mentor many talented individuals, and to provide the right challenges and learning opportunities to help them grow and advance. He seeks to expand this even further by helping to create and nurture the next generation of translational scientists. An important step is cultivating in translational professionals the necessary awareness, knowledge and experience to contribute significantly to the advancement of the field.

Jeffrey Beekman leads a translational research group in the University Medical Center Utrecht that focuses on the development of individual readouts for disease progression and therapy response in cystic fibrosis (CF). He has been trained in molecular and cellular biology, and became principle investigator in 2010, focusing on CF. His lab developed an innovative functional assay in intestinal organoids that provides a patient-specific platform for analysis of CFTR residual function and CFTR-targeting drugs. This platform facilitates preclinical drug efficacy screening in an individual manner, and is highly suited for drug development and patient stratification. His current work focuses on the implementation of this intestinal model to enable precision or personalized care for people with cystic fibrosis. Currently, the first patients have received treatments based on this personalized test, for which he was rewarded CF person-of-the-year 2017 by the European CF society.

Colby Benari has over a decade of experience supporting biomedical researchers to find mentors, win funding and develop their careers. As Head of the Academic Careers Office, University College London, Colby is responsible for developing the careers of over 5,000 graduate students and many more postdoctoral biomedical researchers through innovative and impactful programmes. Colby has previously managed research funding schemes and mentoring schemes for Cancer Research UK and the UK Academy of Medical Sciences.
About the speakers and moderators

**Rinze Benedictus (MSc)** works as a staff advisor at the UMC Utrecht, The Netherlands, and is involved in the Science in Transition initiative. This initiative, that gained significant political traction in The Netherlands, brought the debate about quality, reproducibility and relevance of scientific research in the limelight. Benedictus was trained a biologist, and after working as a science journalist, is now active in science policy and management. At the UMC Utrecht he is developing and implementing new incentives and rewards for researchers. Benedictus is also doing PhD research about institutional policy-making processes that shape research governance and evaluation practices. This is supervised by the Centre for Science and Technology Studies, Leiden University, Leiden, the Netherlands.

**Kors van der Ent (MD, PhD) (1962)** is paediatrician, Professor in Paediatric Pulmonology and chair of the Child Health program. After medical training in Rotterdam and Utrecht he became a research fellow at the department of Paediatric Respiratory Diseases where he graduated in 1997 on a thesis on clinical and physiological aspects of tidal breathing analysis as a measure for airway obstruction in young infants. At the same year he founded the Utrecht Cystic Fibrosis Center, being the largest in the country, focusing on multidisciplinary and long-term centralised treatment of patients with CF. In 2000 he became head of the department of Paediatric Respiratory Diseases and Allergology and was appointed as professor since 2007. Van der Ent is the leader of the national HIT-CF program which focuses on the development and personalized application of new drugs influencing the basis genetic defect in patients with CF. This program includes both mechanistic studies in collaboration with the Hubrecht lab and the Byvoet Center as well as studies into host pathogen interaction in collaboration with the veterinary faculty of the Utrecht University.

**Richard Foty** is an Assistant Professor at the Dalla Lana School of Public Health, and a course director in the Translational Research Program in Health Science, Faculty of Medicine, University of Toronto. Richard is a provoking and gripping educator. He challenges students to think differently so they can champion change in their own communities. At the TRP he is a course director of Foundations in TR and a faculty advisor for Capstone projects. Richard was classically trained as a musician from a very young age. While music continues to be an integral part of his life, he has also been able to blend his artistic passion into his scientific pursuits. His research interests include mobile health technologies, the health effects of climate change, and building predictive models and identifying trends within populations. Prior to undertaking his doctoral studies, Richard was a Research Coordinator at the Hospital for Sick Children. He holds an undergraduate degree in Kinesiology and Health Science from York University and a Master’s of Science degree in Epidemiology from UofT.
About the speakers and moderators

Sabine Fuchs (MD, PhD) is a pediatrician in metabolic diseases at the Wilhelmina Children's Hospital / University Medical Center (UMC) Utrecht. She studied pharmacy (cum laude) and medicine (cum laude) at the University of Utrecht. She combined her pediatric training with a PhD (ZonMW AGIKO grant) in the department of metabolic diseases in the Wilhelmina Children's Hospital / UMC Utrecht. She now combines clinical work with research in the field of genetic/metabolic liver diseases. In collaboration with the Hubrecht Institute (prof. Clevers), she uses liver organoids to improve therapeutic strategies for patients with liver diseases – both as a unique in vitro model to develop and test novel treatment strategies and as a new source for liver stem cell transplantations. She further aims to improve pediatric care as a board member of TULIPS (Training Upcoming Leaders In Pediatric Science), an organization devoted to improving child health by empowering young clinician scientists to achieve high quality research. She was a participant in the EUREKA certificate course on translational medicine in Sicily in 2010, and returned as a faculty member in 2019. Moreover, she was involved in organizing the Eureka - UMC Utrecht Summer School on translational medicine from the very beginning.

Pat Furlong is the Founding President and CEO of Parent Project Muscular Dystrophy (PPMD), the largest nonprofit organization in the United States solely focused on Duchenne muscular dystrophy (Duchenne). Their mission is to end Duchenne. They accelerate research, raise their voices in Washington, demand optimal care for all young men, and educate the global community. Duchenne is the most common fatal, genetic childhood disorder, which affects approximately 1 out of every 3,500 boys each year worldwide. It currently has no cure. When doctors diagnosed her two sons, Christopher and Patrick, with Duchenne in 1984, Pat didn’t accept “there’s no hope and little help” as an answer. Pat immersed herself in Duchenne, working to understand the pathology of the disorder, the extent of research investment and the mechanisms for optimal care. Her sons lost their battle with Duchenne in their teenage years, but she continues to fight—in their honor and for all families affected by Duchenne. In 1994, Pat, together with other parents of young men with Duchenne, founded PPMD to change the course of Duchenne and, ultimately, to find a cure. Today, Pat continues to lead the organization and is considered one of the foremost authorities on Duchenne in the world.
Johan Garssen is Full Professor of Immunopharmacology at Utrecht University, where he’s also Head of the Division Pharmacology at the Utrecht Institute for Pharmaceutical Sciences. At Danone/Nutricia Research, after several functions as from 2002, Johan is currently R&I Director Immune in the Global ELN Centre of Excellence Utrecht. He studied medicine and biology at the Free University, Amsterdam, Netherlands. He specialised in immunology, pharmacology and Biochemistry and finished both studies in 1987 cum laude. He finished his PhD thesis at the University of Utrecht in 1991 on the role of T cells in respiratory allergy, an Immunopharmacological approach. This PhD programme and a postdoc period was partly performed at Yale University, New Haven, USA. After the postdoc period he became senior scientist at the National Institute of Public Health in the Netherlands. There he coached many research projects, both preclinical as well as clinical research, in the field of immunomodulation induced by a.o. nutritional ingredients, drugs and environmental agents. Johan Garssen published over 700 peer reviewed papers in the field of “immunomodulation”. He is editorial board member for Elsevier “Pharma Nutrition” and co-edited “Pharma-Nutrition, An Overview” (2014-Volume 12 of Springer Series AAPS Advances in the Pharmaceutical Sciences), examining the effects of natural products and functional/medicinal foods (nutritional programming) on disease management. He has contributed to various grants, a.o. NWO, EU, NIH, and recently the STW Nutrall Grant, nutrition-based approach to support antigen-specific oral immunotherapy for food allergy and the RAAKPRO DiAgRaMs Grant, validate exercise as challenge model to test health products on intestinal condition and immune system.

Brian Goeltzenleuchter, MFA - Artist, writer, and educator
Brian Goeltzenleuchter was born in San Diego in 1976. Through an artistic practice that uses analog and digital technologies to mediate the senses of sight, sound, touch, and smell, Goeltzenleuchter designs situations which explore the dynamics between individuals and the cities and institutions which shape those relationships. Goeltzenleuchter's interactive art has been critically celebrated for expanding the olfactory potential for transmedia storytelling. He earned his MFA in 2001 at UC San Diego. From 2002 - 2008 he was Associate Professor and Director of MFA Studies in Art at Central Washington University. He has held residencies at the Institute for Art and Olfaction, Los Angeles, Banff Centre, Canada, and Centrum Beeldende Kunst, The Netherlands. He is Faculty Fellow in the Weber Honors College and Research Fellow at the Institute for Public and Urban Affairs, San Diego State University. Selected exhibitions and performances include: Volatile!, The Poetry Foundation, Chicago (2015); Sillage, Santa Monica Museum of Art (2014); Adaptive Equipment, Lust Gallery, Vienna, Austria (2011); c (pronounced /k/) Wellness Centre, Southern Alberta Art Gallery, Canada (2010); c Boutique, Museum of Contemporary Art, San Diego (2010); Sponge X Sponge, Colorado State University (2007); Institutional Wellbeing, Centrum Beeldende Kunst, The Netherlands (2006); Who's not for sale, Banff Centre, Canada (2006).
Dr. Gianfranco Grompone is a senior scientist and team manager delivering high impact product solutions in a competitive global market by combining strong academic basic science background to industrial experience. Dr Grompone’s research interests include: microbiome and probiotics, nutrition and health, functional foods, prebiotics and symbiotics, microbiome-driven products and innovation, personalized nutrition, translational medicine and biotechnology. To date, he has developed solid networks and public-private partnerships worldwide, with a special focus in Latin America. He has been involved in science & technology prospective policies and innovation strategies in Latin American countries as a consultant. He has recently developed a science popularization national radio broadcasting program in Uruguay, with a strong focus on microbiome related topics. He is a member of the Harvard Kennedy School Executive Education Alumni network. Dr. Grompone got his agronomic engineer diploma at ENSAR (Ecole Nationale Supérieure Agronomique de Rennes, France) in 1999. After his PhD (1999-2002) at Pr. Dusko Ehrlich’s lab (INRA Jouy en Josas, France) where he focused on the role of homologous recombination in the replication of the chromosome of E. coli, he worked as a postdoc (2002-2005) at Pr. Philippe Sansonetti’s lab (Institut Pasteur, Paris, France), focusing on the early step of Shigella flexneri entry into intestinal epithelial cells. He then moved to Danone Research (Palaiseau, France) where he worked within the R&D Department for 10 years (2005-2015), focusing on the selection, functional characterization, preclinical validation and clinical development of new probiotic strains for the dairy division. From 2014 to 2016 he directed the microbiome program at Bioaster, a new public-private Technology Research Institute co-founded by Danone Research, Institut Mérieux, Sanofi Pasteur, CNRS, INSERM, CEA, Institut Pasteur and Lyonbiopôle. He was the head of the biobusiness and IP direction at National Institute of Agronomic Research in Uruguay from 2016 to 2018. Since May 2018, he joined Lesaffre International R&D Corporate team in Lille, France to work as a Discovery Nutrition and Health Science leader with high focus on microbiome driven new products and bioactive molecules screening.

More info here: https://www.linkedin.com/pub/gianfranco-grompone/a/b00/90a

Arno Hoes, MD, PhD, studied Medicine at the Radboud University in Nijmegen and obtained his PhD degree at Erasmus University Rotterdam on a thesis on sudden cardiac death as a side effect of diuretics in hypertension. He was trained in Clinical Epidemiology at Erasmus Medical Center Rotterdam and the London School of Hygiene & Tropical Medicine. In 1998 he was appointed professor of Clinical Epidemiology and General Practice at Utrecht University / University Medical Center (UMC) Utrecht. From 2010 to 2019, he has been the Chair/ Scientific & Medical Manager of the Julius Center for Health Sciences and Primary Care of the UMC Utrecht. Since June 2019 he is dean and vice president of the University Medical Center Utrecht. His main research topics include the prevention of cardiovascular disease and the early diagnosis and management of cardiovascular disease, with an emphasis on heart failure. His teaching activities include courses on clinical epidemiology, diagnostic research, clinical trials, case-control studies and cardiovascular disease and prevention. He has (co-) authored over 600 papers in peer-reviewed journals and around 60 PhD students completed their PhD thesis under his supervision.
About the speakers and moderators

**Roos de Jonge (PhD)** was trained as a Medical Biologist and obtained her PhD in neurogenetics at AMC, Amsterdam, The Netherlands. After a year of postdoctoral fellowship at the Silvius Laboratorium in Leiden, she decided to quit basic science and study philosophy at UvA, the Netherlands. She aimed for a job in science education or journalism but ended up as the scientific coordinator at Prinses Beatrix Foundation, a big charity foundation specialized in muscle and motor neuron diseases. In 2006 her daughter was born with a severe congenital heart defect and forced her to switch to Duchenne Parent Project which was at walking distance of her house. She started combining the care for her daughter with patient advocacy and got involved in patient participation at Stichting Kind&Ziekenhuis. Nowadays works as Advisor Patient Participation in education at the UMC Utrecht combining her personal experience with training.

**Farah Kools (MSc)** is a PhD candidate at UMC Utrecht. She is passionate about the Life Science sector and focusses on ways to bridge the gap between bench and bedside and raise awareness about reducing research waste. Farah has a background in Biomedical Sciences at Utrecht University where she did research in the fields of Metabolic Diseases, Regenerative Medicine, and Oncology, completing her Master internship at Massachusetts General Hospital, a teaching hospital of Harvard Medical School in Boston. She hasn’t completely given up her American life though and now splits her time between Utrecht, Boston, and her home country Singapore.

**Belinda van’t Land (PhD)** is a Sr. Scientist within Nutricia Research and affiliated to the Wilhelmina’s Children’s Hospital, UMC Utrecht. She currently leads a cross-functional research team (consisting of a Post-doc, 3 PhD students and a Sr. Assistant Scientist) studying the complex interplay between nutrition and immunological development in early life. She obtained her PhD at the Radboud University of Nijmegen which focused on the immunopathology involved in mucosal barrier injury with the impact of nutrition as key study aspect. With increasing interest in immunological challenges and the passion for translational research she took the role as scientist within Nutricia Research and performed clinical as well as preclinical research leading to a fast amount of publications, patents as well as granted research collaborations. With the passion for early life immune development and believe that nutrition can make the difference she is dedicated to increase the translational capacity of current research collaboration.
Dr. Julie Ledford received her undergraduate degree at the University of Georgia with a BS in Genetics and her PhD in Genetics and Molecular Biology from the University of North Carolina at Chapel Hill. She did her post doc work in the late Dr. Jo Rae Wright’s lab at Duke University. She transitioned to assistant research professor of medicine at Duke in 2011 and moved to the University of Arizona in 2015, where she is currently a Tenured Associate Professor of Cellular & Molecular Medicine. Her current work in the area of pulmonary surfactant immunobiology combines her knowledge of mouse genetics, pulmonary disease models and immune function regulation and focuses on understanding the role of Surfactant Protein-A (SP-A) and how it regulates signaling pathways within various immune cell populations. Specifically, she is interested in how SP-A regulates degranulation, either directly or indirectly, of two important cell types in asthma: mast cells and eosinophils. More recently, Dr. Ledford’s research has focused on understanding how genetic variation within human SP-A2 alters functionality of the protein in relation to eosinophil activities and how this translates to characteristics observed in human asthma. Her lab is funded by multiple R01s from the NIH and a multi-center U19 grant.

Jorg van Loosdregt (1981) obtained his PhD at the Molecular Immunology laboratory, University Medical Center Utrecht, The Netherlands. Here, he studied the regulation of the transcription factor FOXP3, which is crucial for both the differentiation and function of regulatory T cells, and therefore for maintaining immune homeostasis. After completing his PhD program in 2011 (cum laude) Jorg moved to the Department of Translational Research, at the Sanford-Burnham Medical Institute in San Diego, USA, on a fellowship from the Dutch Arthritis Foundation. In San Diego he investigated the role of autophagy in orchestrating effector T cell responses, with a focus on rheumatoid arthritis. In December 2013, van Loosdregt returned to Utrecht (supported by a VENI fellowship) to focus on the molecular and epigenetic pathways that are deregulated in autoimmune diseases. At the beginning of 2017, Jorg moved to the laboratory of translational immunology (LTI) to form a research group together with pediatric clinician/researcher Bas Vastert. The van Loosdregt-Vastert group is dedicated to perform both fundamental and clinical research with the aim to develop novel therapeutic strategies to treat autoimmune diseases such as juvenile idiopathic arthritis.

Frank Miedema (1954) studied biochemistry at the University of Groningen, specializing in immunology, with a minor in Philosophy of Science. He obtained a PhD from the University of Amsterdam at the Central Laboratory of the Blood Transfusion Service (CLB), now Sanquin. There, from 1983 he was project leader immunovirology of HIV/AIDS as part of the Amsterdam Cohort Studies. In 1996 he was appointed full professor at AMC/University of Amsterdam and in became Director of Sanquin Research in 1998. In 2004 he became head of the Immunology department at the University Medical Center Utrecht. Was Dean and vice chairman of the Executive Board at the University Medical Center Utrecht until March 1, 2019. He is now leading the Open Science program at Utrecht University. He is one of the initiators of www.scienceintransi- tion.nl/english. Science in Transition believes that the scientific incentive and reward system is in need of fundamental reform. Next to Science for Science (articles in journals), the added value for society needs to be more appreciation and societal stakeholders should be involved more integrally in the production of knowledge. Since 2016 he is active in promoting science in the Netherlands and the EU.
About the speakers and moderators

Marc van Mil is associate professor biomedical education at University Medical Center Utrecht, the Netherlands. He cares about and contributes to the professional development of future clinicians, clinician scientists and biomedical scientists; both by being an excellent teacher and a dedicated educational researcher. Marc’s background in biotechnology, combined with a PhD in the educational sciences forms a unique and solid basis for his scholarly work within the educational institute of the medical faculty of Utrecht University. His current line of research, entitled ‘Eye on Impact’, explores educational strategies that help students to cross boundaries between disciplines and broaden their perspective on the societal impact of biomedical innovations. In his view, education can play a crucial role in helping healthcare professionals to identify how to contribute to the challenges in translational medicine. In 2017 Marc was awarded “Higher Education Teacher of the Year” in the Netherlands. The jury praised his efforts to make students aware of the societal impact of biomedical innovations and they applauded his efforts to engage the public in the scientific developments in biomedicine and to raise awareness of the impact of new technologies such as CRISPR/Cas and Next Generation Sequencing. Marc gave many public lectures and participated in talk shows, science festivals, children’s TV-shows and YouTube-clips.

Joris van Montfrans (MD, PhD) is a clinician-scientist in the Wilhelmina Childrens Hospital, part of the UMC Utrecht. His clinical work consists of taking care of children with immunodeficiencies and auto-immune diseases. His research focusses on children and adults with primary immunodeficiencies and his team includes 3 PhD students with special interests in new or improved diagnostic tests, genetics causes of immunodeficiencies, and improved treatments. Joris is active in the national working party for immunodeficiencies (secretary) and in the ESID registry steering committee. Other activities: he is part time interior designer (for modern houses).

Kiran Nistala is a Discovery Medicine Physician at GSK. He leads a group of scientists and physicians specialising in Experimental Medicine and Early Phase Clinical Trial Design. Additional roles include leadership of the GSK Immunology safety panel, and the GSK lead for academic-industry partnerships in Juvenile arthritis and Sjogren’s syndrome. Prior to joining GSK, Kiran trained as an academic paediatric rheumatologist. During his PhD at Institute of Child Health, UCL, Kiran was the first to show that IL-17 secreting T cells played a pathogenic role in childhood arthritis (Juvenile Idiopathic Arthritis (JIA)). This was followed by a Wellcome Intermediate Clinical Fellowship working in the group of Prof Mauri, investigating the molecular control of B cell differentiation using a mouse model of autoimmunity. Four years of murine research was enough to convince him of the importance of researching medicines in man!
Berent Prakken (MD, PhD) is vice-dean and director of the biomedical education centre at the UMC Utrecht, the Netherlands. He is also professor of pediatric immunology at the University Medical Center Utrecht and honorary professor at the University of Ghent, Belgium. Berent Prakken has built a translational research lab that focused on regulation of inflammation and biomarker development in human inflammatory diseases. He received numerous national and international awards and grants for his work. The work of his group is published in all major international journals, including Nature Medicine, PNAS, Immunity, the Lancet, JCI and in various Nature journals. Over the years he successfully mentored more than 40 PhD students. Prakken serves in various national and international research advisory boards and was member of the Dutch National Health Council (‘Gezondheidsraad’). He was vice-chair of Medical Ethical Review Board (IRB) of the UMC Utrecht.

Berent Prakken is president of the Pediatric Rheumatology European Society (PRES) and member of the EULAR executive committee. He is member of the steering committee of UCAN (international federation facilitating biological research in arthritis) and has set up the first international platform for biological studies in arthritis (UCAN-U, www.ucan-u.org). Berent Prakken’s personal commitment is to training & education and to improve the impact of science. Unconventional thinking, collaboration and crossing boundaries inspire him, as his close friendship with Salvo Albani, Norm Rosenblum and the other board members of Eureka. As co-founder and board member of the EUREKA Institute for Translational Medicine he enjoys the journey on which Eureka is taking them. Berent has been course director of the EUREKA summer school course since the start in 2016.

Harold van Rijen studied Biology at Utrecht University and obtained his degree in 1992. He became a PhD student at the department of Physiology of the Academic Medical Center Amsterdam, studying the biophysical properties of gap junction channels in endothelial and smooth muscle cells in the human vascular wall. In 1998, he returned to Utrecht as a postdoc at the department of Medical Physiology of the University Medical Center, investigating abnormal electrical properties of gap junction channels in the diseased heart. In 2003, he became assistant and in 2008 associate professor, dividing his time between medical physiology education, leading a research group on basic mechanisms of slow conduction related cardiac arrhythmias and heading the mouse phenotyping lab of the division Heart and Lungs of the University Medical Center. In 2006 he started with the implementation of several forms of e-learning in his own (patho) physiology courses, such as web lectures, micro lectures, formative assessments, e-modules and classroom response systems, and launched the customized e-learning platform ‘Physiopedia.nl’. Furthermore, he developed two cardiovascular course packs, entitled ‘Hart en Vaten’ and ‘Leef met je hart!’ in collaboration with the Netherlands Heart Foundation and the Junior College Utrecht for the 2-year program “Nature, Life & Technology”, in secondary school (VWO & Havo). In 2012 he was appointed ‘Professor of Innovation in Biomedical Education’ and initially focused on development of effective blended learning models in the biomedical curricula. In 2012 he became head of the strategic Educational IT program ‘Onbegrensd Leren’. Since 2015 he is the programme director of the 12 master’s programmes of Biomedical Sciences and as of 2018 also the Director of the Utrecht University Graduate School of Life Sciences. His current design based educational research is focused on ‘Future Proof Education’, comprising blended and online learning, learning analytics, development of 21st century skills and selection/admission for graduate education. LinkedIn: https://www.linkedin.com/in/harold-van-rijen-90209810/
About the speakers and moderators

Dr. Norman Rosenblum is Professor of Paediatrics, Physiology, and Laboratory Medicine and Pathobiology at the University of Toronto, and a Paediatric Nephrologist and Senior Scientist in the Research Institute, the Hospital for Sick Children. He is the recipient of a Tier I Canada Research Chair in Developmental Nephrology. In 2018, Dr. Rosenblum assumed the role of Scientific Director of the Canadian Institutes of Health Research (CIHR) Institute of Nutrition, Metabolism and Diabetes (INMD). CIHR is Canada's federal health research granting agency. INMD is one of 13 Institutes dedicated to development of Canada's health research strategy in specific subject areas. Dr. Rosenblum is a MD graduate of Dalhousie University. He completed a Pediatric residency and a fellowship in Pediatric Nephrology at the Children’s Hospital, Boston followed by a postdoctoral fellowship in the laboratory of Bjorn Olsen in the Department of Anatomy and Cell Biology, Harvard Medical School. Dr. Rosenblum was recruited in 1993 as a clinician scientist to the Hospital for Sick Children and University of Toronto. Since then, the focus of his research has been to elucidate molecular mechanisms that control normal and malformed kidney development in genetic mouse models with a focus on signaling by bone morphogenetic, WNT and Hedgehog proteins. His lab has generated several models of human kidney-urinary tract malformation. He has published over 120 peer-reviewed original manuscripts and book chapters. Dr. Rosenblum has been deeply engaged in developing and managing career development programs for clinician scientists. He founded and led the Canadian Child Health Clinician Scientist Program from 2001-2012 and served as Associate Dean, Physician Scientist Training in the Faculty of Medicine, University of Toronto, from 2008-2017. Dr. Rosenblum is Past-President of the Canadian Society for Clinical Investigation and a current member of the Council of the American Pediatric Society. He is a founding member of the EUREKA Institute for Translational Medicine and a current member of the Board of Directors. Dr. Rosenblum is the recipient of the 2004 Aventis Pasteur Research Award, the American Pediatric Society inaugural 2006 Norman J. Siegel New Member Outstanding Science Award, the Society for Pediatric Research 2010 Maureen Andrew Award in Mentoring, and the Kidney Foundation of Canada 2011 Medal for Research Excellence.

Hester den Ruijter (PhD) I am a translational scientist at the Laboratory of Experimental Cardiology in the University Medical Center Utrecht. My research focusses on sex differences in cardiovascular diseases. I have been trained in fundamental research as well as in clinical epidemiology. Currently, I coordinate the Dutch Heart Foundation funded consortium Queen of Hearts, a consortium that works on biomarker discovery-a clinical test- to improve the diagnosis of cardiovascular disease in women. One of our challenges is how to involve stakeholders in the process of translating fundamental knowledge to the patient. Next to my scientific career, I value the communication towards our society and am an active member of Women Inc, an organization that raises national awareness that important sex differences in medical research and care are currently neglected.
About the speakers and moderators

Salmaan Sana

Salmaan’s mission is to get people to discover who they are and how they can have a more significant positive impact on the world around them. He uses his knowledge & experience on leadership, development, compassion and change in a way that is both personal and invigorating. For the past four years he has been working as a senior consultant and meaningful learning specialist for Better Future. Better Future is a purpose driven consultancy helping leaders and their team make a difference. This is done by designing and crafting journey’s, connecting teams from all over the world, from NGO’s to cooperates, in order to create social impact. Here you can find a video on Better Future and how they work on their mission: http://bit.ly/BF-MissionWater

Salmaan’s focus is to create change agents. He finds ways to get individuals to become more aware of themselves, their responsibility and gain insights on their inner drive. He harnesses the power of frustration and transfers this into a constructive and positive force that can be used to shift things from the inside out, both personally and organizationally. As he is a specialist in designing and facilitating leadership programs, his focus is on creating a culture and organisational change within different fields. He has a long history within the field of healthcare. In 2011 he started a foundation together with other healthcare professionals on Compassionate Healthcare (http://www.compassionforcare.com/en). This especially lifted off after taking the stage at TEDxMaastricht (https://www.youtube.com/watch?v=UxaT-Yx-Qds4 ). He also co-initiated and help run leadership programs for healthcare professionals in the form of summer schools (http://humansofhealth.com). The last years he has developed a series of programs within the medical educational department, working with, amongst other; Medical Specialists, Clinical Educators, Researchers, Clinical Residents, Nurses, Management Boards and entire hospital departments. On any other day, you can find Salmaan living in the south of Amsterdam, using his bike to commute while he builds consistency in cross fit and writing. For more background information - please check his Linkedin: www.linkedin.com/in/salmaansana or find him on other social media platforms which he uses to share his story.

Casper Schoemaker (PhD)

Casper Schoemaker (PhD) is a senior researcher and project leader at the National Institute for Public Health and the Environment (RIVM), the Netherlands. Furthermore, he is an advisor on patient participation in research at the Wilhelmina Children’s Hospital (UMC Utrecht). He is the father of a JIA patient, and a lung patient himself. Casper represents the Dutch JIA Patient and Parent Association in several research projects, and in the Dutch JIA-guideline panel. He leads a national priority setting partnership to establish a research agenda for JIA, following the James Lind Alliance method. As a member of the Scientific Advisory Board of the Lung Foundation of the Netherlands, he appraises research proposals from a patient perspective. In the process of patient involvement and engagement, he can build on his research experience with stakeholder participation. He was a member of the editorial board of the leading Dutch mental health journal, which included patients. In these years he experienced how patients can make a valid and valued contribution to improve the relevance of research.
About the speakers and moderators

**Dr. Anita Small** is a sociolinguist, educator and researcher. She is inspired to bridge seemingly different worlds through communication, language and culture. Dr. Small is founder and owner of small LANGUAGE CONNECTIONS, consulting to non-profit organizations, theatres, opera, museums, broadcast companies and educational institutions. Her work engages diverse groups to co-create collaborative communicative contexts for program innovation and organizational change. She is most known for her innovative program development in the Deaf community. She is Co-Founder and past Co-Director of the DEAF CULTURE CENTRE, Canada, the first of its kind internationally, featuring a museum, art gallery, library, archives and multi-media production studio. Dr. Small taught in the Deaf Education Training Program, Faculty of Education, York University for 12 years and has taught comparative linguistics in the Linguistics Department, University of Toronto since 2010. She is cross-appointed to Hogeschool Utrecht University, Institute for Sign Language & Deaf Studies, Netherlands researching Deaf performing arts. She has authored publications on language planning, bilingual pedagogy, sign language literacy and sign language performance arts, Deaf identity and cross-cultural interaction. Anita Small has obtained over eleven million dollars in language and culture project grants and mentors artists and organizations on effective grant writing. She spearheaded and served as content manager and co-creator of numerous award-winning sign language productions (children’s books, videos, DVD’s and websites). She is recipient of a United Nations International World Summit/ UNESCO Award (2013) as co-creator of the Deafplanet educational television series and website www.deafplanet.com and of the International W3 Award (2012) for the first Animated American Sign Language (ASL) Dictionary for Children, www. aslphabet.com. Dr. Small established the Canadian Literary and Deaf Arts Awards of Excellence through the Canadian Cultural Society of the Deaf and the International Deaf Documentary Awards through Deaf History International. She is Director, Cross-Cultural Development and Research for THE BLACK DRUM, first signed musical, to be featured in Canada and France (2019). Dr. Small was project manager and author of the Deaf Artists and Theatres Toolkit (DATT), 2016, an online guide to engage Deaf performing artists and audiences across Canada. She served on the Ontario Museums Inclusive Leadership Advisory Board co-creating a practitioner’s guide to inclusive museums. She is content manager and author of the online guide for barrier free education and of the online guide for employers on workplace inclusion through the Canadian Hearing Society. She served as content manager to create the innovative digital platform, Unlocking Culture for curriculum development, instruction and evaluation for sign language instructors of parents of Deaf children and interpreters across Canada. Dr. Small has her Doctorate of Education in Sociolinguistics (1986) and Cultural Mediation and Dispute Resolution Training (1992). She has taught, consulted and mediated in the U.S., Canada, Japan, Italy and the Netherlands and has provided cross cultural interaction training and mediation with Deaf and hearing personnel for 30 years. Dr. Small is recipient of the singular national award from the Canadian Deaf community (2006) given to a hearing individual. www.anitasmall.com

**Anna van Suchtelen** (New York 1961) studied Literature (MA) in Groningen, the Netherlands and Visual Arts at University of California San Diego, USA. She is an artist and a writer. Text and narrative play a crucial role in her visual work, which includes installations, performances, printmaking, audio works and film. Her projects, often context-specific and interactive, explore the senses, memory and time. Her work has been exhibited, performed and screened in the Netherlands, the United States, Canada, Italy, India and Japan. Selected art projects include: Genius Loci (2017), ← ← and 0 degrees (2015) for Dapiran Art Project Space; Pioneer Pop (2014) for Pavillion pOp/AORTA; Pilgrim Kootwijk (2013-12) for Green Wavelength/Radio Kootwijk; Our Airs Conspire (2013) for The Greenhouse/Kunstuitleen, nominated by K.F. Hein Art Stipendium; Lindenduft (2010) for K.F. Hein Foundation; Soft Voices (2009) for Kunstsporen Foundation/University Museum/Museum Boerhaave. Selected writing projects include: articles, reviews and columns for Art Platform Lucy (2017-11); novel Versailles at the Scheldt for Cossee Publishers (2017). www.annavansuchtelen.com
Eureka alumnus Bas Vastert (MD, PhD) is a pediatric rheumatologist in the Wilhelmina Children’s Hospital Utrecht. He obtained his PhD on mechanisms of disease and therapy in severe Juvenile Idiopathic Arthritis in 2013. From 2013, he started a translational research line in the laboratory of translational immunology which ultimately aims to improve the patient experience and lead to increased patient autonomy. In recognition of a particularly underserved and poorly understood patient population, Michael founded Childhood Cancer Survivor Canada (CCSC), the first organization of its kind in Canada which focuses solely on creating awareness of the needs and experiences of survivors of childhood malignancies—now totalling over 50,000 in Canada alone. A survivor himself, Michael knows first-hand that life after cancer is drastically different than life before cancer. The experience of cancer and its treatment leaves these young people with chronic health conditions and physical, psychological, cognitive and emotional disabilities for life—all at a time where they are pursuing higher education, seeking meaningful employment, and trying to start families of their own. Through its team composed of survivors and experts, and access to a national network of specialized healthcare providers, CCSC empowers survivors to live their best life possible through education, health resources, and a community that finally gets it. In his free time, Michael enjoys hiking, skiing, and wine crafting. He also loves to travel and is excited to be visiting Utrecht for the first time!

Ghislaine van Thiel (PhD) obtained a Master’s degree of Health Sciences at Maastricht University. She specialized in Medical Ethics and Philosophy of Science. Currently she is Associate Professor at the Julius Center for Health Sciences and Primary Care of the UMC Utrecht. Her main research topics are ethics of drug regulation and development, and clinical ethics. Ghislaine is a member of the Dutch Health Council, a chair of the Medical Research Ethics committee at the UMC Utrecht and she teaches medical ethics at the Faculty of Medicine.

Michael Taccone (MD, PhD candidate) is a senior resident of neurosurgery at the University of Ottawa and a PhD student at the University of Toronto in the SickKids Research Institute. His clinical interests and research interests are within the area of neuro-oncology—specifically novel therapeutics and diagnostics. Beyond academia, Michael is most passionate about healthcare innovation which ultimately aims to improve the patient experience and lead to increased patient autonomy. In recognition of a particularly underserved and poorly understood patient population, Michael founded Childhood Cancer Survivor Canada (CCSC), the first organization of its kind in Canada which focuses solely on creating awareness of the needs and experiences of survivors of childhood malignancies—now totalling over 50,000 in Canada alone. A survivor himself, Michael knows first-hand that life after cancer is drastically different than life before cancer. The experience of cancer and its treatment leaves these young people with chronic health conditions and physical, psychological, cognitive and emotional disabilities for life—all at a time where they are pursuing higher education, seeking meaningful employment, and trying to start families of their own. Through its team composed of survivors and experts, and access to a national network of specialized healthcare providers, CCSC empowers survivors to live their best life possible through education, health resources, and a community that finally gets it. In his free time, Michael enjoys hiking, skiing, and wine crafting. He also loves to travel and is excited to be visiting Utrecht for the first time!

Eureka alumnus Bas Vastert (MD, PhD) is a pediatric rheumatologist in the Wilhelmina Children’s Hospital Utrecht. He obtained his PhD on mechanisms of disease and therapy in severe Juvenile Idiopathic Arthritis in 2013. From 2013, he started a translational research line in the laboratory of translational immunology and from March 2017 he is coheading the v Loosdregt-Vastert group within the Laboratory of Translational Immunology in UMC Utrecht, focusing on novel therapeutic strategies in JIA through translation of cutting edge basic science into clinical benefit. He is currently leading a multi-center prospective trial implementing a biomarker driven stop-strategy for rIL-1RA therapy in systemic JIA in the Netherlands and setting up a clinical trial studying the potential of Nicotinamide (vitamin B3) in therapeutic strategies for non-systemic JIA. In 2016 he organized, together with EUREKA alumnus Klaus Tenbrock ((Aachen, Germany) a fund raising bicycling tour, from Utrecht (Netherlands) to Genua (Italy). The UCAN Ride for Arthritis (UCANR4A.eu) boosted international research collaboration, raised > 30 000 euro on private donations and received major media attention (local as well as national) in the Netherlands, Germany, Switzerland and Italy.
About the speakers and moderators

**Wouter B. Veldhuis (MD, PhD)** is Radiologist at the University Medical Center Utrecht in the Netherlands. He is the initiator of IMAGR, the image analytics infrastructure that brings deep-learning algorithms directly into the clinical workflow in the UMC Utrecht. He is Cofounder of QuantibU, a translational AI startup active in the field of medical imaging. He is also the initiator of doRadiology.com, an interactive platform for radiology teaching applications, and developer of myBody-myData.nl, a portal that gives patients direct access to their medical imaging data. Dr. Veldhuis is the coordinating radiologist of the DENSE trial and designed the DENSE MRI protocol that has been running on top of the Dutch Breast Cancer Screening Program for the past 8 years. He holds a PhD in Magnetic Resonance Imaging and Spectroscopy Methods, and has authored over 130 papers (bit.ly/PubWV). Before coming to Utrecht he was an Oncologic Imaging Scholar at the Memorial Sloan-Kettering Cancer Centre in New York, funded by the MSKCC and the European Society for Radiology, and a postdoc at the Stanford University Richard M. Lucas MRI Center on a grant from the Dutch Cancer Society (KWF).

**Lucy Wedderburn (MD, PhD)** is Professor of Paediatric Rheumatology, UCL GOS Institute of Child Health, University College London. My research interests are T cell immunology, immune regulation and muscle biology. I am Director of the Arthritis Research UK Centre for Adolescent Rheumatology, a partnership between UCL, GOSH and UCLH which aims to promote and develop research in Adolescent Rheumatology. Childhood arthritis has proved an excellent model in which to study the balance between activation and regulation in the immune system. In myositis through our UK wide cohort and biomarker study we have changed the way that biopsy and autoantibody information is used to personalise care. I now lead an exciting new initiative to deliver personalized treatment strategies to children with arthritis called CLUSTER.

**Nico Wulffraat (MD, PhD)** is professor of pediatric Rheumatology and chair Research and Education at the department of pediatrics, University Medical Center, Utrecht, The Netherlands. He obtained his MD and PhD (1987) at the Free University Hospital Amsterdam. He was trained as a pediatrician from 1988 until 1993 in Utrecht. He was fellow pediatric immunology and rheumatology from 1993 to 1995 in the WKZ. Since 1995 he worked as a consultant in pediatric immunology-rheumatology. Since 2010 he is the head of this subunit. From 1997-2004 he was also coordinator of the pediatric allogeneic and autologous stem cell transplantations for immune deficiencies, metabolic disorders and autoimmune diseases. Field of Study in Pediatric Rheumatology are interventions in the regulation of chronic inflammation (medication, immunisation and cellular therapies). He is PI of several investigator initiated trials of immunisations in children with rheumatic diseases including MMR, HPV and Men C, prevention of MTX side effects, and application of Mesenchymal Stem cells in refractory GvHD and JIA. He is coordinator of a FP7 consortium for pharmacovigilance of biologics used in JIA (PHARMACHILD). Also he leads the EHHC project SHARE that aims at documenting standards of care and treatment recommendations for pediatric rheumatic diseases throughout Europe. Past memberships are Board of Dutch pediatric rheumatology society, Scientific Advisory Council of the Dutch League for Rheumatology, ZONMW programme committee Translational Adult Stem cell research, ZONMW programme committee Priority medicines for Children, European Medicines Agency (EMA) expert group for Pediatric rheumatology. Currently he is council member of PRES and PRINTO. Dr Wulffraat has co-authored over 240 Pubmed cited papers in international journals on pediatric rheumatology and immunology and 12 chapters in books. Hirsch index is 44.
Administrative faculty biography

**Erica Roks, course coordinator** Erica has been teamed up with Berent Prakken for over 19 years now. She started off as secretary in the Wilhelmina Children’s Hospital, became Berent’s personal assistant in 2005 and supported him in numerous international projects/events. In 2016 she joined Berent as Project Assistant in his move to the UMC Utrecht Education Center. Erica has coordinated this Summer School course since 2016.

Supporting faculty biography

**Emily Robinson** Robinson is a training facilitator in Translational Research and links the EUREKA institute across the three UCL NIHR Biomedical Research Centres, UCLH, GOSH and Moorfields eye hospital. In this role she supports the London Apollo society as well as putting on a variety of translational research educational events across UCL. Emily has a background in health and exercise science research, as well as previously working as a clinical respiratory physiologist.

Working in a range of research environments, both conducting and supporting researchers in NZ, Canada and the UK she has seen the importance of successful translational research and is passionate supporting researchers across their own journeys.

Guest photographer biography

**Thirza Luijten, BA** Thirza Luijten, BA ‘My name is Thirza Luijten. After getting my photography degree at The Royal Dutch Academy of Art in The Hague I started working as a fashion photographer. Did a lot of travelling, then decided it would be nice for a change not to work solely with models, so switched to reportage and portraits. I also did still/behind the scenes photography on film/music video sets. Since 2016 I have been involved with the Summer School and I am very much looking forward to continuing that!’
Student biographies
Student biographies

Nathan Balukoff is a MD/PhD student at the University of Miami Miller School of Medicine in the United States. He is currently in his second year of graduate school where he is studying the regulation of translation in a distinct component of the tumor micro environment. His long term career goal is to become a research oncologist and develop novel therapeutics to reduce cancer mortality and morbidity. He plans to utilize his medical training to develop a clinically driven research platform to help combat tumorigenesis.

Rachel Besser is a 4th year PhD candidate in the biomedical engineering department at the University of Miami. She studies cell and tissue engineering in Dr. Ashutosh Agarwal's Physiome- metric Systems Laboratory and is co-mentored by Dr. Mario Saporta. Her research focuses on the development of an in vitro neuromuscular junction platform which will be used to better understand Charcot-Marie-Tooth (CMT) disease. CMT is a rare hereditary neurological disorder affecting 1 in 2,500 people. She hopes to help uncover therapies to treat patients suffering from CMT. During her PhD, she served as vice president of the graduate student engineering council at the University of Miami, during which she organized events for graduate students to foster a welcoming community where students can share ideas and collaborate. Additionally, Rachel is the programming chair on the student and young investigator (SYIS) council for the Tissue Engineering and Regenerative Medicine (TERMIS) America conference. SYIS works to organize career development and networking events for early career scientists. Rachel has focused on collaboration and translational research since beginning her PhD and looks forward to expanding her knowledge and becoming part of the Eureka institute.

Tambinh Bui is currently in her first year of the Selective Utrecht Medical Master (SUMMA) program. In 2018, she obtained her BSc in Pharmaceutical Sciences from Utrecht University with cum laude honours. For her bachelor thesis, she had the opportunity to perform a study on the real-world effectiveness and tolerability of a new breast cancer treatment. This experience made her even more passionate about medical research, especially in the field of medical oncology. She is curious about the use of molecular biomarkers and genetic profiles to select the most effective therapy for each individual patient. Tambinh aspires to become a clinician-scientist who can effectively and safely bring discoveries from the lab to clinical practice, without harming the patient or the developments in medical research. Besides her studies, she loves to take part in extracurricular activities and student organisations. She enjoys the monthly meetings of Apollo Society Utrecht, and likes to think critically about how the value of medical research could be increased. She looks forward to learn from the leaders in the field of translational medicine and other interested researchers and students during this summer school, and get inspired for her future research projects.
Amandine Charras (BSc, MSc, MBA, PhD) is a post-doctoral research associate at Experimental Arthritis Treatment Center (EATC) for Children at the University of Liverpool. The main goal of this multi-disciplinary team is to understand childhood autoimmune/inflammatory disease with a special focus on juvenile-onset SLE in order to develop disease- and outcome-specific biomarkers as well as target-directed and individualised treatment options. Prior to her tenure in Liverpool, she completed her PhD thesis at the University of Brittany, Brest, France, which focused on DNA methylation in Sjögren’s syndrome and its role in the molecular pathogenesis. During this part of her career, she developed knowledge and interest for mechanisms of gene regulation in systemic inflammatory disease. Her current work focusses on the pathophysiology of juvenile-onset SLE and aims at deciphering genetic contributors to disease. The project is at the interface between basic (genomics) and clinical research (association with data from the UK JSLE cohort study).

Julie Chase (MD PhD) has just completed her first year of Pediatric Rheumatology fellowship at The Children’s Hospital of Philadelphia (CHOP). She has trained all over the US, first earning dual undergraduate degrees in biology and chemistry at the University of New Mexico. She then went on to Washington University in St. Louis, where she gained extensive experience in murine models while studying natural killer (NK) cell function in the laboratory of Dr. Wayne Yokoyama, earning a Ph.D. in Immunology. During graduate school, she realized that she both wished for her research to have greater clinical impact, as well as to have the opportunity to care for patients directly, leading her next to obtain her M.D. at the University of Missouri-Columbia. She then completed residency training in Pediatrics at the Monroe Carell Jr. Children’s Hospital at Vanderbilt in Nashville, TN, before moving on to pursue fellowship training in Pediatric Rheumatology at CHOP. She will start her research this summer in the lab of Dr. Edward Behrens, where she plans to study the type I interferon response in juvenile dermatomyositis.

Liselotte Deroo (MD) is a clinical PhD student at the Rheumatology Department of the Ghent University Hospital (Belgium). During her medical studies she was active in the students association and has interned at the Shiraz University Hospital (Iran). After her graduation in June 2018 she was admitted to the training programme for Internal Medicine, but decided to precede her clinical training by a 4-year research clinical project in the field of Rheumatology under the supervision of Dirk Elewaut (MD, PhD). Her project is twofold, on the one hand she participates in the current studies on spondyloarthitis. On the other hand she is making preparations to launch a new clinical care path for patients suffering from Sjögren’s Syndrome. The aim of the global project is to study the influence of mucosal inflammation on these rheumatic diseases.
**Student biographies**

**Birgit van Dooijeweert** is a medical doctor (MD) with specific interest in Pediatrics and hematology. She studied medicine in Utrecht and graduated in November 2016. She is a passionate skier and ski-instructor, which almost lead her to sign a contract to become a general surgeon in Austria, but a successful scientific research internship in Pediatric Hematology (under close guidance of dr. Marije Bartels) and a fruitful senior internship in Pediatrics prevented her from doing this. She continued her research and started her PhD with focus on the clinical aspects of the rare bone marrow failure disorder Diamond Blackfan anemia (DBA) in April 2017. After 8 months, funding issues and a few doubts on where to go with it, she took a clinical break and worked as a junior doctor (ANIOS) in Pediatrics in Amersfoort (Meander Medical Center) in 2018. Starting February 2019 and with regained motivation and enthusiasm, she continued her PhD project, now in collaboration with the department of Clinical Chemistry and Hematology, and more focused on rare hereditary anemia in general. As a medical doctor and student she has always been very conscious of, and intrigued by the balance of science, political and economic interests, and what this means for a patient in the end. She hopes to gain new and refreshing insights on translational medicine and academic research in general during this course.

**Lulu Fundikira (MD)** is a Lecturer in the department of Radiology and Imaging at Muhimbili University of Health and Allied Sciences (MUHAS) in Dar es Saalam, Tanzania. She is a medical specialist in Radiology and has been working at MUHAS since 2012. Her duties include teaching, supervision of research work, clinical service at the teaching hospitals and research. She served as the Head of department of Radiology and Imaging at MUHAS for 6 years, she has also served as a member of the MUHAS workers’ council representing the School of Medicine for 3 years. Dr Fundikira also had been a member of the University senate as well as University Council at different times. She attended a fellowship in Cardiothoracic Imaging at Yonsei University in South Korea in 2017 and developed a special interest in Cardiac Imaging. Currently, Dr Fundikira is pursuing her PhD in Dilated Cardiomyopathy at UMC Utrecht under the supervision of Professor Folkert Asselbergs.

**Dr. Grace Gong** obtained her Ph.D. from The University of Auckland, New Zealand, and is currently a Postdoctoral Research Associate at University College London working on PI3-Kinase with Prof. Bart Vanhaesebroeck, and Dr. Roger Williams from the MRC Laboratory of Molecular Biology. She also works closely with the Drug Discovery Group in the Translational Research Office at UCL. During her Ph.D. studies, she was involved in multiple drug discovery projects, and was the winner of numerous awards including the AMRF Emerging Researcher Award, and the Maurice Wilkins’ Centre Early Career Award. Following her Ph.D., she worked at the Shanghai Institute of Materia Medica for six months on two collaborative projects involving PI3-Kinase and SGK high-throughput screening and inhibitor design. In 2019, she was award the Marie Skłodowska-Curie Actions Individual Fellowship. Her interests are in anticancer drug discovery, structure-based drug design, protein-membrane interactions and structural studies.
**Student biographies**

**Kaitlyn Gonsalves** (Honours B.Sc., M.H.Sc. Candidate 2020) is a Master of Health Science candidate in Translational Research at the University of Toronto located in Toronto, Canada. She holds an Honours Bachelor of Science in Psychology, Neuroscience & Behaviour from McMaster University. Kaitlyn strives for insightful and nuanced discussions surrounding complex healthcare problems by fiercely advocating for patients and keeping them at the core of her solutions. Kaitlyn confidently champions for patient advocacy within underserved communities. She passionately advocates for vulnerable communities to have equal and equitable access to healthcare. She is dedicated to providing patients with tools to navigate the healthcare system with confidence and ease. She deeply values an empathetic approach to healthcare through understanding the patient’s lived experience. She has expertise in neuroscience and immunology. Her research interests include creating solutions to patient-centered problems, 3D printed models for surgical training, as well as anything involving neuropsychiatric illnesses, brain tumours, neuroimmunology, immunotherapies, and cancer immunology.

**Lianne Granneman (MSc)** is a first-year PhD student at the Laboratory of Clinical Chemistry and Haematology (LKCH), UMC Utrecht. Before starting her PhD she studied Biomedical Sciences followed by the master program Biology of Disease, both at Utrecht University. During her masters she performed two research internships, one focusing on the development of a diagnostic tool for a platelet function disorder and the other focusing on the differentiation of induced pluripotent stem cells towards megakaryocytes. During her masters she also enrolled in the Communication & Education profile, doing an internship at the science communication department at the Dutch Heart Foundation. In her current project she focuses on uncovering mechanisms that accelerate the formation of a thrombus on top of a stable non-ruptured plaque, a process also known as plaque erosion. Within this project she has a specific interest for the role of endothelial cells. Overall her goal is to identify new plaque erosion endothelial cell-specific target genes using human plaque material and validating the role of these genes in endothelial (dys)functioning in vitro.

**Katrien Groenhof (MD)** is PhD candidate Cardiovascular Epidemiology and postgraduate master student of epidemiology in the UMC Utrecht, The Netherlands. Katrien is the first PhD working on the Utrecht Cardiovascular Cohort (UCC). The UCC aims to create an infrastructure for uniform registration of cardiovascular information in routine clinical practice for patients referred for cardiovascular care. This infrastructure will promote optimal care according to guidelines, continuous quality control in a learning healthcare system and creation of a research database. The Learning Healthcare System is a continuous cycle of data collection in routine care, analysis, interpretation, feedback, and change implementation. In her thesis, Katrien focusses on re-using clinical care data as a first step in this cycle. Katrien is also UMC Utrecht representative in the Dutch National PhD representatives working group for UMC-PhDs, working on the basic course for clinical investigators. She considers teaching as much of a lesson for her students as for herself and has dedicated a considerable part of her PhD time to supervision of students and educational training. Connecting different fields, thinking outside the box and thinking in possibilities not pitfalls inspire Katrien. You are always welcome to pitch a question or brainstorm with her about your idea.
**Student biographies**

**Floor Groepenhoff (MD)** is a PhD-candidate at the experimental cardiology department of the Utrecht Medical Centre. For her research project she works in close collaboration with the radiology department. The main focus of her PhD is to explore if more accurate diagnostics can be achieved in patients with chest pain without obstructive cardiovascular disease. She is 23 years of age, was born and raised in Amsterdam. She is a field hockey player and currently plays in the first women’s team of Gooische HC. She always worked in the medical field besides her studies, most relevant to medicine studies was her job at the medical service centre of 24 Care for patient with cardiac complaints. Furthermore, during her bachelors and masters she has always been fascinated by cardiovascular research. For her master thesis, she researched peri-operative anti-coagulation and the effect of deep hypothermic cardiac arrest according to coagulation processes.

**Eline Hermans** is a first year paediatrician in training at the University of Ghent and is currently working at the Groene Hart Ziekenhuis in Gouda (the Netherlands). She received her bachelor’s and master’s degree in medicine at the University of Ghent and graduated with greatest distinction. Her main interests are paediatric pharmacology and intensive care medicine. Next year she aims to start her doctoral research project on tissue pharmacokinetics of antibiotics in septically ill children, a multidisciplinary project resulting from a collaboration of several research groups at the University of Ghent. What drives her to become a researcher is the opportunity to professionally explore and nurture her curiosity for physiology and pharmacology, eventually to contribute to a more evidence based approach in pediatric medicine. She hopes to inspire future generations of doctors and other health care personnel by making teaching an integral part of her career.

**Leon de Hoog** Prior to undertaking his current SUMMA (Selective Utrecht Medical Master) degree, Leon pursued a Bachelor’s degree in Pharmacology at the University of Manchester. Here he developed an interest in research. He undertook a year-long research internship at the University of Kentucky studying the role of the blood-brain barrier in acute ischemic stroke through animal and cell culture models. He further expanded on his interest in ischemic stroke through studying the role of fat-mediated inflammation on stroke in Manchester. In order to directly help patients and to contribute to translational medicine, Leon joined the SUMMA programme in 2015. He hopes to be a better doctor through becoming a better researcher and to be a better researcher through becoming a better doctor.
Levi Hoste
Born and raised in the charming city of Bruges in Belgium, I was predestined for a career in sports. Since primary school, especially track and field turned out to be my first big love and other hobbies or school work soon fell into oblivion. Although spending hours per day running around the track or in the woods, my injury sensitive body decided not to be as ambitious as I was and by the time I outgrew adolescence, ultimately, I was forced to make a decent career choice. Medicine was an obvious choice with continuous satisfaction for my interest in sports and the human body during the first few years of education. After seven years of general education at Ghent University (and a gain of 8kg of body weight since quitting regular running), my interest turned toward pediatrics in which I was allowed specializing since 2016. Since then, I'm too engaging myself as a representative for colleagues, both in my own university center and for other Flemish pediatricians-in-training (as an enthusiastic member of Jong VVK). Although really enjoying my daily work and real life interactions with kids and seeing patients and parents, after three years of clinical care, one of my mentors, Prof. Dr. Filomeen Haerynck, succeeded to act on my scientific interests and tricked me into a doctoral project in primary immunodeficiency. Preparations are being made to start this project from September 2019 onwards.

Jessika Iwanski (MD PhD Candidate) received her bachelor's degree at Simon Fraser University in British Columbia, Canada. She majored in Cells, Molecules and Physiology. During her undergraduate career she worked in several labs beginning in an Insect Chemical Ecology Laboratory where she studied the mechanisms of insect and spider communication through semiochemical cues in parasitic wasps. Her research in this lab led her to work with Agriculture and Agri-Food Canada where she studied populations of the blueberry gall midge (BGM) and cranberry tipworm (CTW), Dasineura oxycoccana, determining whether BGM and CTW are the same species by deriving the specific stereoisomer configuration of synthetic sex pheromone that is attractive to male tipworms. Subsequently she was awarded the Vice President Undergraduate Research Award, which gave her the opportunity to work as an electrophysiology research assistant studying ion channel behaviour and its relation to cardiovascular disease, cardiac arrhythmias and sudden cardiac death. Jessika was then chosen to be part of a clinical research team at Vancouver General Hospital (VGH) examining the economic burden of asthma and its effects on the quality of life on over 600 patients in urban and rural settings. After completion of her BSc she moved to Tucson, Arizona to join the Graduate Sciences Perfusion Program at the University of Arizona. Her training included both didactic course instruction and research in cardiovascular surgery. As a perfusion student she learned how to operate the heart-lung machine during adult and pediatric open-heart surgery and also how to operate artificial heart devices such as the Syncardia Total Artificial Heart, HeartWare LVAD and CentriMag. In addition, Jessika also worked on the Transplant Team as an Organ Procurement Technician- assisting surgeons in procuring heart, lungs and kidneys. She completed her master's degree under cardiothoracic surgeon, Dr. Zain Khalpey in the Department of Surgery and Medical Pharmacology, researching mesenchymal stem cell therapy as a treatment option for ischemic cardiomyopathy in porcine models. Currently, she has completed her first two years of medical school and is finishing her first year of graduate school in the Department of Molecular Medicine- researching mutations in sarcomeric proteins that lead to the development of dilated cardiomyopathy using both murine and iPSC-CM models. Cumulatively, Jessika's research has led to 9 publications in both national and international journals and she hopes to become a future Cardiologist.
Student biographies

Mohammad Amin Jebelli, MD, MHS(c) is a general practitioner and second-year master’s student in the Translational Research Program (TRP) at the University of Toronto, Canada. Amin is a graduate of Tehran University of Medical Sciences and Health Services, Iran. He practiced medicine, collaborated in multiple clinical research studies, and tutored experiential learning courses for medical students before pursuing his studies in translational research. Passionate and determined to promote patients’ quality of life, health, and care, he is currently working towards translating a biodegradable filler matrix to be used in the postoperative wound-care of patients with pilonidal disease. Amin also has great interest in medical imaging and cardiology. His research interests include exploring non-invasive imaging modalities for safer and more accurate diagnosis of cardiovascular diseases.

Lisanne Kouwenberg (MSc) is a fifth-year medical student at Utrecht University, the Netherlands. After studying abroad at the University of New Hampshire in the United States, she discovered her specific interest in Health Economics. Therefore, she decided to complete a second master’s degree in the field of Health Economics, Policy & Law. For her master thesis she did an internship at the Dutch Healthcare Authority (DHA/NZa) researching the accessibility of expensive medicines in lung cancer treatment. With her enthusiasm and curiosity, she has undertaken many activities, both related and unrelated to medicine. She participated in translational cardiology research and she did a part time board year in the international non-profit student organization AIESEC. Furthermore, she joined Apollo Society two years ago, to learn more about the added value that translational research can bring to the medical field. In her free time, she likes to play field hockey and visit new places, like her recent trip to Southeast Asia. In her career, she wants to contribute to a future of healthcare that is sustainable and innovative. She sees a world full of opportunities and takes on as many as she can. By exploring her broad interests, such as economics and psychology, she hopes to find new ways to give patients opportunities in the future. She plans on doing this both directly in the consultation room and more broadly through participating in research and improvement projects for e.g. hospital management, the government or pharmaceutical companies.

Jeffrey Liu (PhD) is an Maternal and Child Health Research Institute (MHCRI) and NIH-T32 funded postdoctoral fellow at Stanford University working with Dr. Maria-Grazia Roncarolo and Dr. Rosa Bacchetta in the Division of Pediatric Stem Cell Transplantation and Regenerative medicine. He received his Ph.D. at Northwestern University in 2017 in Molecular Biosciences working under Professor Lonnie Shea. His Ph.D. research focused on developing novel immunomodulatory biomaterial-based strategies to improve immune tolerance for allogeneic islet transplantation. Jeff has continued to pursue translational research in his postdoctoral fellowship. currently working to develop and optimize an engineered Type-1 regulatory (Tr1) T cell therapy through lentiviral transduction of human IL-10 into human CD4+ T cells. By leveraging the unique characteristics of Tr1 cells, he is hoping to utilize this therapy to treat Graft-versus-Host Disease in patients with acute myeloid leukemia or other malignant and non-malignant hematological disorders receiving allogeneic hematopoietic stem cell transplantation.
Eleonora Lugarà is a Research Associate at the Department of Clinical and Experimental Epilepsy in Prof. Matthew Walker’s laboratory (UCL) in the UK. Her project involves the design and evaluation of a novel gene therapy approach for patients with refractory epilepsy in collaboration with Prof. Dimitri Kullmann’s lab. She is also responsible for the ideation and management of a clinical study for the identification of biomarkers of epilepsy at the Queen Square Hospital in collaboration with the Imperial College. Eleonora is involved in several collaborative projects: she assesses the electrophysiological properties of iPSCs derived from patients affected by Parkinson’s disease in collaboration with Dr. Manju Kurian’s lab (UCL). She collaborates with Prof. Sarosh Irani (Oxford) evaluating the specificity of patient derived neuronal auto-antibodies affected by limbic encephalitis and how they impact cellular excitability. She cooperates with Dr. Gabriele Lignani and Dr. Ahad Rahim’s lab (UCL) to test a potential neuroprotective drug for temporal lobe epilepsy already used in the treatment of diabetes. During her PhD studies, she investigated a brain trans-synaptic protein and its role in basic physiology and epilepsy pathology. Before this, she studied and worked between several research institutes Italy, Ireland and France. Finally, she is part of the International League Against Epilepsy (ILAE) Society and she acts as Editorial and Journal Lead of the London division for Science Innovation Union, a non-profit organisation that aims to gap the bridges between universities, private sector and public policy. She also assists Labstep, a Google camp based start-up in London, with the recruitment of potential users and the strategic marketing campaign. Through these projects, her passion for basic science evolved into an interest in translational sciences targeted at finding alternative approaches to existing unmet clinical needs.

Lucy Marshall is a 2nd year PhD student at University College London studying within the Great Ormond Institute of Child Health. Her project is focused on T cell biology in a rare inflammatory muscle disease called Juvenile Dermatomyositis (JDM) within the translational research group led by Professor Wedderburn. Lucy has assisted and co-organised several patient/parent activities relating to research in the field of JDM which has gone on to inform her research goals. She has co-supervised 10 students ranging from internship to MRes levels some of which have gone onto successfully publish in high impact journals.

Nazia Mehrban (PhD, FHEA) is a tissue engineer working closely with surgeons in the repair and regeneration of several different types of tissues, such as neural tissue, skin and adipose tissue. She completed her PhD on engineering ligaments from University of Birmingham before moving to University of Bristol to learn more about protein design and the development of novel hydrogels for cell culture. Nazia is currently employed as a Post-Doctoral Research Fellow at University College London where she is developing novel, implantable materials towards tissue engineering; either as cell-populated scaffolds or towards biocompatible medical devices. Her current role allows her to work with engineers, biologists, chemists and even roboticists in exploring the diversity of research in translational medicine from bench to bedside. Nazia is currently a Board Member of Apollo London, a partner of the EUREKA institute and, together with Apollo Toronto, a sister branch of the original Apollo Society for Translational Medicine in Utrecht.
Student biographies

Céline Mortier is a 4th year PhD student at the Department of Rheumatology, Faculty of Medicine, Ghent University, Belgium. She graduated in 2014 as a Veterinarian and worked in small animal veterinary practice for 2 years, after which she started a PhD in 2016. She is involved in a translational research project on spondyloarthritis, where she is studying various immune cells that are involved in this autoinflammatory disease. In 2011 she participated in the Leadership Program for Veterinary Student at Cornell University, USA. During her studies she was a member student representative in the Faculty Council.

Reuben Mutagaywa (MD) is Cardiologist, Clinical Researcher and lecturer at Muhimbili University of Health and Allied Sciences (MUHAS), Tanzania. He did doctor of medicine at the University of Dar Es Salaam, Tanzania. Then Masters of Medicine internal medicine at MUHAS, followed by fellowship in cardiac pacing at the University of Cape Town. Then Master of Science in Cardiology at MUHAS, now joined PhD in Cardiovascular Sciences at UMC Utrecht. Furthermore, I love doing exercises like jogging, watching movies, listening to music and travelling. ‘Success is the ability to face the difficulties without loss of hope’

Susana Patuleia (MD) is a PhD student at the departments of Oncology and Pathology at the UMC Utrecht. Before attending Medical school, she obtained a BSc in Biomedical Sciences and a MSc in Biomolecular Sciences. During her studies, she sought for experience and training within the Oncology field in fundamental research and epidemiologic research. She did two laboratory internships aiming to understand signaling in the context of cancer: one at the Netherlands Cancer Institute (NKI-Avl) and another at the Ludwig Institute for Cancer Research (LICR) in Oxford, United Kingdom. Later on, she did an epidemiologic internship at the UMC Utrecht focused on the management of locally advanced pancreatic cancer. In her current PhD path, she aims to discover and validate a microRNA signature for early breast carcinogenesis. This has a potential for usage in the clinic as a diagnostic test for early detection of breast cancer.
**Student biographies**

**Jeff Peterson (BSBioeng)** is an MD-PhD student in the biomedical engineering program at the University of Miami in Miami, Florida. His research focuses on infections of the cornea and new treatments for those infections. Specifically, he is developing a dose measurement system for Rose Bengal Photodynamic Antimicrobial Therapy, which has been used experimentally to treat more than 25 patients with severe corneal infections at Bascom Palmer Eye Hospital in Miami, FL. Prior to starting his program, Jeff volunteered building low-cost prosthetic limbs in La Paz, Bolivia, as well as worked to provide low-cost adjustable prescription glasses to health fairs in remote communities of Peru and Brazil. Jeff has also worked for numerous medical device startups, working to develop everything from drug delivery devices and orthopedic implants, to healthcare computer games. In his free time he sings in a medical student A capella group and loves learning languages.

**Sajida Rasul (MBChB, BSc., MSc. MRCPCH)** is a paediatric rheumatology trainee from Liverpool in the UK. She is currently completing a year in research at the University of Liverpool, in which time she is working on a project looking at the classification of systemic lupus erythematosus in children. She has completed a masters in clinical rheumatology when she worked with the Myonet group and Arthritis Research UK at the University of Manchester, and completed her project on juvenile dermatomyositis and anti-Mi2 antibody. Sajida is currently a member of the National Institute for Health Research General Paediatrics Clinical Study Group and is actively involved with the Early Arthritis Treatment for Children group based at Alder Hey Children’s Hospital, in association with the University of Liverpool. She is also a member of EMERGE and the British Society of Paediatric and Adolescent Rheumatology. Sajida is inspired by exciting patient centred research in particular disease variation between ethnic groups and geography. Moreover she is a keen advocate for creating opportunities in research for clinicians . She looks forward to the wide and bright world of research open beyond the summer school and involvement with EMERGE.

**Natalie Rosenwasser (MD)** is a Clinical Fellow in the field of Pediatric Rheumatology at the Hospital for Special Surgery and New York Presbyterian Hospital in New York, United States. She has been working in the Pascual Lab under Virginia Pascual at the Drukier Institute for Children’s Health at Weill Cornell through a joint collaboration. The Pascual lab is focused on translational research and Dr. Rosenwasser has been working on identifying urinary biomarkers in patients with Systemic Lupus Erythematosus (SLE) and those afflicted with lupus nephritis through targeted transcriptomics. She has received a Fellow Small Grant for this research through the Childhood Arthritis and Rheumatology Research Alliance (CARRA) and has been awarded the 2019 CARRA Hope award for basic and translational research. Her long-term interests include translational research in connective tissue diseases in childhood.
Iva Rukavina (MD, PhD) is a pediatrician working at the University Hospital Centre Zagreb, Croatia and she was board certified in pediatric rheumatology this year. She did her postgraduate doctoral research on rat experimental model of human rheumatoid arthritis in Pharmacology Department, Zagreb Medical School. The study was aimed at examining the effect of pentadecapeptide BPC 157 on the severity of adjuvant arthritis and to define the underlying mechanisms. She received PhD in 2016 and continues with the research in the same laboratory, currently working on resolution of inflammation in rat adjuvant uveitis. Her work is published in international journals and Seminars of arthritis and rheumatism is the one with the highest impact. She is member of Croatian Medical Chamber, Croatian Pediatric and Rheumatology Society as well as Pediatric Rheumatology European Society (PRES). She is included in teaching of Pediatrics at Zagreb Medical school and in Medical Studies in English at undergraduate level. Her main career interests are experimental and clinical rheumatology.

Christine Ryan is a 2nd year Neuroscience PhD student from the University of Miami Miller School of Medicine, studying in laboratory of Dr. Jae K Lee. As part of the Miami Project to Cure Paralysis, the Lee laboratory research focuses on neuroinflammation after spinal cord injury (SCI). Her undergraduate research experience with Dr. James Schummers at the Max Plank Florida Institute for Neuroscience centered on the role of astrocytes in shaping the circuitry of the visual cortex. This passion for glial biology, combined with a translational interest in the role of glia in disease states, led her to Dr. Lee’s laboratory, where her current project looks to understand the contribution of lipid-laden “foamy” macrophages to SCI cellular pathology and inflammation. Her long-term goal is to elucidate the cellular and molecular underpinnings of inflammation as it pertains to CNS injury and disease, and to generate new pharmacological and biologic therapies to help promote neuronal regeneration and tissue repair in patient afflicted with these conditions. She hopes that attendance at the Utrecht summer school program in translational medicine will be an essential part of her maturation into a translational scientist in the field of SCI and other CNS pathologies.

Megan Sylvester is entering her 5th year as an MD/PhD Candidate at the University of Arizona, where she is currently pursuing a PhD in Physiological Sciences. She received her Bachelor of Science in Biology and Public Health from the University of Colorado Denver in 2014. Since beginning her training as a physician scientist at the University of Arizona, Megan has developed a deep passion for women’s health and sex-specific disease mechanisms—a surprisingly understudied area in basic science research. Her PhD dissertation project focuses on sex differences in immune-mediated hypertension with a particular emphasis on how hypertensive susceptibility changes in females following menopause. Megan has won multiple merit-based scholarships and scientific poster awards since arriving at the University of Arizona and has been appointed to her departments’ competitive T32 Interdisciplinary Training in Cardiovascular Grant since 2018. Although she is currently in the laboratory full time, Megan still prioritizes service to both her patients, and the scientific community at large. She consistently volunteers at community family medicine clinics, serves on multiple campus-wide committees including the University of Arizona Women in Science Student Council, and mentors younger students both in the laboratory and through the American Physician Scientist Association’s mentorship program. Following completion of her MD/PhD training, Megan hopes to complete an OB/GYN residency program where she can expand her clinical knowledge and build the foundation for a successful translational research career focused on women’s health and sex-specific disease mechanisms.
Jennifer Tsai (MD) is a fellow in the pediatric hematology/oncology division at Lucile Packard Children’s Hospital at Stanford University in California, USA. She is conducting preclinical research in the laboratories of Kenneth Weinberg, MD, an expert in stem cell biology, and Daria Mochly-Rosen, PhD, a leading translational biologist, to activate aldehyde metabolism as a potential treatment for Fanconi Anemia. FA is a rare inherited genetic disorder with serious hematologic consequences and cancer predisposition. Jennifer is also developing a biomarker assay for aldehydes in collaboration with the laboratory of chemist Eric Kool, PhD, to support the development of clinical trials for Fanconi Anemia and other conditions due to aldehyde-mediated damage. Jennifer has been passionate about developing novel therapies for hematologic diseases since her first experiences with patients when she worked as a clinical research assistant, which inspired her to become a physician. Her future goal is to become a leader in early phase clinical investigation to improve outcomes for patients. While her current research focuses on a rare disease, her hope is that discoveries made for rare diseases will lead to broader applications to improve human health.

Katie Tucker (BSc) is a Master of Health Sciences student in the Translational Research Program (TRP) at the University of Toronto’s Faculty of Medicine (although, graduation is, happily, soon approaching). Her capstone project has consisted of a needs assessment via semi-structured interviews with residents living with mild to moderate dementia in a long-term care home in downtown Toronto. The project explores quality of life and quality of care principles from the patient perspective, and attempts to understand how this information can be woven into local quality improvement initiatives. She aims to ultimately help build a toolkit for person-centred innovation within the Ontario long-term care sector. Throughout her time at UofT, Katie has become involved in several extracurricular initiatives. She has served as Co-Chair of Pillars of Health, a bi-annual multidisciplinary networking event for healthcare innovators; Executive Co-Lead of UofT Talks, an annual symposium tackling poignant health issues such as the opioid crisis and refugees’ access to healthcare; and Director of Academic Affairs for the Institute of Medical Science Students’ Association, for which she curates events and resources to enhance the academic well-being of students, such as indigenous cultural competency training. This year she also was a Teaching Assistant for the TRP course entitled Rhetoric of Science: Information, Media and Communication Literacy for the Life Sciences. Before her Master’s degree, Katie was a Medical Research Associate at Allergan Inc., during which she supported Phase IIIb/IV clinical trials across all therapeutic domains in Canada. Katie is an animated person who loves to learn by doing, snuggle any furry animal that will let her, and eat baked goods while listening to podcasts.
**Student biographies**

**Jessica Turnier (MD, MS)** is a Clinical Lecturer in Pediatric Rheumatology at the University of Michigan. She is the first physician scientist in the Division of Pediatric Rheumatology and is currently working under the mentorship of Dr. Michelle Kahlenberg in Adult Rheumatology to gain additional experience in molecular biology techniques and bioinformatic approaches to the study of pediatric autoimmune disease. Her current research focuses on molecular mechanisms of skin disease in juvenile dermatomyositis (JDM). Dr. Turnier recently received funding from the Cure Juvenile Myositis Foundation (Cure JM) to evaluate cutaneous gene expression signatures and inflammatory cell subpopulations in JDM skin. She is in her first year on the K12 Child Health Research Career Development Grant. She was also just awarded a Michigan Institute for Clinical and Health Research (MICHR) Pathway to First Grant Award. Dr. Turnier is an active member of the Childhood Arthritis and Rheumatology Research Alliance (CARRA) and is a co-chair of the Translational Medicine in Juvenile Myositis working group. She plans to develop a JDM clinic and prospective patient cohort with accompanying biospecimens for future studies into potential disease mechanisms, biomarkers and therapeutic targets.

**Catherine Virelli** is a graduate student in the Translational Research Program at the University of Toronto’s Faculty of Medicine. She is also a research trainee at the Centre for Addiction and Mental Health (CAMH) in Toronto, Ontario, Canada, where she is completing her graduate Capstone project. Her Capstone includes an environmental scan and patient needs assessment for government regulation and reimbursement of pharmacogenomic testing. Her approach to Translational Research is influenced significantly by her interest and experiences in provincial and municipal politics. Catherine’s life goal is to enable equitable access to effective mental healthcare services through strategic interdisciplinary and intersectoral collaboration.

**Marian Wesseling (MSc)** is currently a last year PhD student at the UMC Utrecht within the Laboratory for Experimental Cardiology and the Laboratory for Clinical Chemistry and Haematology under the supervision of professor Gerard Pasterkamp. She is also collaborating in the Leiden University Medical Centre, were she performs most of her in vitro work under supervision of professor Marie-José Goumans. Her project mainly focusses on vascular biology and microvascular dysfunction within a cardiorenal disease population. Her research projects comprise both basic science and use of clinical data, with various collaborations within and outside the UMC Utrecht. Before starting her PhD, she finished a bachelor and master degree in Biomedical Sciences at the Utrecht University. Within her studies she assisted at the education department of the Bachelor Biomedical Sciences and worked for a traveling DNA lab, educating high school students about genetics. As she is motivated to improve science education, she is currently getting her Basic Qualification Teaching certificate to proceed teaching in her future career. After her PhD, Marian wants to pursue a career in science combining translational vascular research with education.