



> CiM News from the Committees & Office 12/2022

Dear Colleagues,

As the year draws to a close, we reflect happily and with satisfaction at our network's activities over recent months and look forward to lots of exchange and new cooperations in the New Year.

Wishing you a Merry Christmas! The Cells in Motion (CiM) Executive Board and Science Management & Communication Team





Guess what's behind the image that illuminates our glittery Christmas ball this year? We wish you lots of fun with our <u>"Science on the Christmas tree"</u>!

We warmly welcome several new members to our *science management & communication team*: *Martin Kreuznacht* is the facility manager for CiM's new research building, the Multiscale Imaging Centre, *Silke Jamitzky* coordinates the Faculty of Medicine's new Clinician Scientist Programme, CareerS, and *Karin Deffert* is a new team assistant. Most of the science management & communication team are now based in the same building, so everyone can work even closer together! Picture: Erk Wibberg

Multiscale Imaging Centre: Operations have started!

CiM's new research building, the <u>Multiscale Imaging Centre (MIC)</u>, designed to accommodate working groups from medicine, the natural sciences, mathematics and computer science, is finally starting to function. After some major building delays, laboratories are now being set up, most of the large instruments and service facilities have been installed, and the first working groups will move in at the beginning of 2023.

Already in 2022 the first big symposia were held in MIC, including the annual **Inflammation & Imaging Symposium**, jointly organised by several research networks in our scientific focus area, and the **Interdisciplinary Else Kröner Networking Symposium for Clinician and Medical Scientists**, which was organised by a team of clinician scientists from Münster this year. In addition, several working groups that will move into the building in the future are already using the facilities for regular meetings. The modern auditorium, several seminar rooms and the bright and airey foyer, adorned by a twelve-meter-high artwork, provide central meeting points for our **scientific community in the field of cell dynamics and imaging**.

page 1 of 4



Approximately 200 guests attended the Multiscale Imaging Centre for the Inflammation & Imaging Symposium 2022. Pictures: Marcus Heine

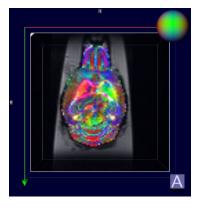
Imaging Network: strengthening and sharing research infrastructure

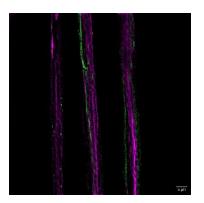
Our Imaging Network teams in **microscopy and preclinical imaging** were involved in several fascinating collaborative projects, supported numerous work groups in their research and have now established new bases in the Multiscale Imaging Centre. Several new high-end microscopes and our novel Bruker PET-MR scanner were installed, and the first images have been acquired.

CiM is especially pleased that the microscopy branch of the Imaging Network has been incorporated into the newly funded **national NFDI4BIOIMAGE consortium**, which develops methods to share and reuse bioimaging data across disciplinary boundaries. In this context, we received financing for an additional position to work on research data management.

A diffusion tensor image of a fixed mouse brain, measured via MR in our newly installed 7 Tesla PET-MR scanner. Diffusion orientation is colour-coded, as indicated by the sphere, and allows the reconstruction of e.g. orientation of nerve fibres. In grey, anatomy is displayed as a T2-weighted image. Image: Bastian Maus

Maximum intensity projection of abdominal nerves of a Drosophila melanogaster larva. Axons are shown in magenta, and the neuronal membrane is shown in green. The image was acquired with the new Zeiss ELYRA-7 lattice SIM. Image: Thomas Zobel, tissue sample by Klämbt lab





The <u>Imaging Network teams in microscopy and preclinical imaging</u> look forward to working with you in 2023 – please feel free to get in touch with any questions!

Research in Motion: additional collaborative power in our scientific field

In 2022, another transregional collaborative research centre in our scientific focus area was approved by the German Research Foundation (DFG) – <u>CRC/TRR 332 "Neutrophils: Origin, Fate & Function"</u> (spokesperson: Oliver Söhnlein). It will receive around 11.5 million euros over the next four years. This network is a joint application of the Universities of Münster, Munich and Duisburg-Essen, includes cooperation partners from Dresden and Dortmund and brings together researchers to study fundamental aspects of neutrophil biology.

• Overview of third-party funded research networks in our scientific focus area "cell dynamics and imaging"

Careers in Motion: training and support for scientists at the interface between disciplines

Combining different disciplines facilitates significant progress in research; our community therefore engages in establishing programmes that promote interdisciplinary career paths in science. One such programme – the new <u>Clinician Scientist Programme CareerS</u> at our Faculty of Medicine (spokesperson: Michael Schäfers) – recently acquired funding of two million euros from the DFG. The programme provides a unique opportunity for physicians to pursue a career at the interface between clinical medicine and the natural sciences. In addition to establishing new qualification modules, *CareerS* will further develop and integrate existing funding opportunities in order to establish a complete professional pathway on which clinician scientists can take clear steps toward building their careers with reliable prospects. *CareerS* complements our University's <u>Medical Scientist College InFlame</u> (spokesperson: Petra Dersch), which is a career support programme for natural scientists, computer scientists and mathematicians working in interdisciplinary projects in the biomedical field. To further evolve the training and collaboration of scientists pursuing these two interdisciplinary career paths, our <u>career development team</u> will help integrate the curricula and networking forums of both programmes in the future.

After a pause due to the pandemic, the re-commencement of **CiM's mobility programmes** in 2022 was very well received. 29 Travel Awards and four Train Gain Fellowships were granted by our Research and Careers Committee. In addition, three interdisciplinary teams received funding for **Pilot Projects**. In total, junior scientist from 28 CiM labs benefited from these funding opportunities in 2022.

- Pilot Projects, Train Gain Fellowships and Travel Awards (next deadline 28 February 2023)
- <u>Overview of our upcoming events</u>

The <u>CiM-IMPRS Graduate Program</u> is thriving too! In 2022, 23 new PhD students from eight different countries were accepted into the graduate school. In total, more than 100 students are currently doing their PhD within the CiM-IMPRS structured training programme, jointly run by CiM and the Max Planck Institute (MPI) for Molecular

Biomedicine in Münster (International Max Planck Research School, IMPRS). To date, financing of the IMPRS portion of the graduate school required reapplication to the Max Planck Society (MPG) every six years. We are very happy to announce that the MPG has now approved permanent funding – a big thank you to all students and faculty members who prepared the application together with our CiM-IMPRS office team. In addition, according to new MPG regulations, all PhD students at MPIs will participate in a structured training programme. This will result in the integration of additional students into the CiM-IMPRS Graduate Program and a total of 120 PhD students in the future.

In 2022, the CiM-IMPRS student representatives established an **Advice Hour**, in which more experienced PhD students, alumni or group leaders provide advice to current CiM-IMPRS students. It takes place several times per year, and so far the topics



The annual **CiM-IMPRS Retreat** was held at Burg Gemen with a variety of career and scientific talks by alumni, as well as workshops on presentation skills and managing one's doctorate. Picture: Kishan Kapupara

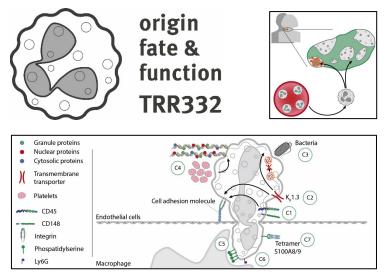
discussed have been "Life after the PhD" and "Work-life balance". In addition to social events, the CiM-IMPRS students organised regular **Career Seminars**, mainly with alumni who reported about their current positions. This year's Interdisciplinary CiM-IMPRS Graduate School Meeting hosted 27 international speakers and attracted 165 participants whose feedback was overwhelmingly positive. In 2023, re-establishment of **excursions to academic institutions and companies** is planned, with the first such excursion occurring in January.

Science communication: public outreach & communication support for our community

2022 saw some exciting video releases from our scientific field: As part of a report about the city and the University of Münster, the TV broadcast "Planet Wissen" published a <u>video story about making bacteria visible in organisms</u> (starting at minute 7:46 in the broadcast, in German). In this clip, chemistry PhD student, Felicitas Landau, and nuclear medicine specialist, Michael Schäfers, give insight into an interdisciplinary research project. In addition, the CiM science communication team produced a <u>video about</u> "computer science between the sciences" (in German with English subtitles available), in which computer scientist, Benjamin Risse, gives examples of how artificial intelligence is helping analyse the behaviour of ants and biomedical images. He also talks about how mathematics – which is inextricably linked to computer science – can be made more accessible to students at school and university and what makes academia more attractive to him than business.

In a recently published study, psychologists, Friederike Hendriks and Rainer Bromme, surveyed scientists from our community about their involvement in public outreach activities. The study demonstrates how communication with groups beyond the scientific community can positively affect scientific collaborations between researchers from different disciplines. Learn more in our news item: What do scientists gain from engaging in public communications?

Throughout the year, our science communication team has supported several research networks and career support programmes in their communication within and beyond the scientific community. The team also created new content for the Faculty of Medicine's website introducing the research focus "Inflammation and Infection". Please feel free to get in touch with our science communication team to ask for support with graphics and communication concepts for projects that are connected to CiM's research focus in cell dynamics and imaging!



Our team developed numerous graphics, logos and presentation slides for CRC/TRR 332 "Neutrophils: Origin, Fate & Function" (examples are shown here), CRU 342 "Organ Dysfunction During Systemic Inflammation" and the Clinician Scientist Programme, CareerS.

CLINICIAN-SCIENTIST-PROGRAMM

Raum für forschungsstarke Ärztinnen und Ärzte Medizinerinnen und Mediziner, die sowohl Palienten versorgen als auch forschen, können entscheidend dazu beitragen, dass Forschung zu konkreten Verbesseungen in der medizinischne Versorgung führt – denn durch den direkten kontakt hir Palientinnen und Patienten rücken klinisch relevante Aspekte in der Forschung besonders in den Blick und neue Erkenntnisse sowie daraus resultierende Ideen können in die Behandtung einlichen. Die Vellati der beiden inhaltlich miteinander verbundenen, in den Arbeitsroutinen aber sehr unterschiedlichen Bereiche empfinden forschende Ärztinnen und Ärzte zudem als Bereicherung im Arbeitsallusz. Doch der dauße Berufsweg der sogenannten "Clinician Scientists" ist in vielerlei Hinsicht herausfordernd und benötigt spezifische Unterstützung.

Angefangen im Studium bis zur fachärztlichen Qualifizierung und zur Professur ermöglichen die Medizinische Fakultät und das Universitätskilnikum Münster Aztinnen und Ärzten **flexible und** geschützte Zaft für die Forschung und unterstitzten dabei, auf dem Karriereweg gleichzeitig klinische und wissenschaftliche Kompetenzen zu entwickeln und zu nutzen.

Die Fördermodule im Überblick
Storys & Eindrücke von Kolleginnen und Kollegen
Kontakt & Komitee



To support the launch of the Clinician Scientist Programme, CareerS, we established a new website, produced a <u>video</u> about the challenging career path towards this profession and published exemplary *career stories*. Some applicants and their mentors explicitly and positively mentioned these communication activities. *In the first round of applicants for two new* qualification modules, significantly more applications were submitted (n=22) than previously submitted in the Faculty of Medicine's Clinician Scientist Programme. 14 candidates were funded, and we are pleased that our science communication team was able to contribute to this success.