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MCID Organisation

The Multidisciplinary Center for Infectious Diseases (MCID) is a strategic center of the University of Bern, founded in 2021 through the generous support of the Stiftung Vinetum. The MCID is dedicated to the study and mitigation of healthcare, societal, ethical, and economic risks from infectious diseases. The MCID brings together high impact academic researchers and is active in research, teaching and both national and international outreach.

People
78 Full Members
8 Postdoctoral researchers / staff scientists
19 PhD students

Organisation
7 Research Clusters
3 Core Activities

Research (to date)
23 MCID-funded research projects
11 Recipients of MCID early career researcher funding
10 Interdisciplinary projects
48 Recipients of MCID project funding
8.4 Mio CHF project funding distributed to date
>1.5 Mio CHF Third party-funding obtained by MCID Members to extend MCID-funded research
>5.5 Mio CHF Third party-funding obtained by MCID Members for topically relevant research

Organigramm

MCID Directorate

MCID Management Office

MCID Scientific Advisory Board

Prof. Dr. med. Steffen Borrmann, Institute of Tropical Medicine, Universitätsklinikum Tübingen
Prof. Dr. med. Ralf Jox, Faculty of Biology and Medicine, University of Lausanne
Prof. Dr. Salomé LeibundGut-Landmann, Vetsuisse Faculty, University of Zürich
Prof. Dr. Céline Mayrot, Institute of Social Sciences, University of Lausanne
Prof. Dr. Aleksandra Torbica, Department of Social and Political Sciences, Bocconi University
Dr. Maria van Kerkhove, World Health Organisation
Prof. Dr. med. Christophe von Garnier, Division of Pulmonology, CHUV, University of Lausanne
Dr. David Wentworth, Centers for Disease Control and Prevention, Atlanta
Prof. Dr. Nadia Mercader Huber, Institute of Anatomy, University of Bern
Prof. Dr. Oliver Mühlemann, Department of Chemistry, Biochemistry and Pharmaceutical Sciences, University of Bern
MCID Research Structure
Core Activities and Clusters

The MCID is comprised of seven interconnected scientific discipline clusters that bring together subject area excellence, fostering innovative, multi- and interdisciplinary investigations. At the heart of the MCID and in service to the specialist clusters, lie the MCID’s three founding Core Activities: the BEready Cohort, the BioPreparedness BioBank and the Ethics and Policy Lab.

MCID Core Activities
BEready Cohort

BEready is a Canton of Bern population cohort study, collecting essential longitudinal data to improve knowledge about existing infectious diseases and preparedness for emerging health threats. BEready, currently in its pilot phase, plans to enroll approximately 5,000 households, including adults, children and pets. The research platform will use innovative decentralized data collection methods, a flexible and novel bioinformatics infrastructure, and a biobank including human and animal samples.

BEReady Cohort Core Team
Prof. Dr. med. Nicola Low, Institute of Social and Preventive Medicine (ISPM)
Prof. Dr. med. Gilles Wandeler, Department of Infectious Diseases, Inselspital / ISPM
Dr. Eva Maria Hodel, ISPM
Selina Wegmüller, ISPM

Milestones 2023
Approval for pilot cohort study by ethical committee and veterinary office, March 2023
Enrolment of pilot study participants completed, April 2023
Engagement in Pint of Science Bern by BEready Cohort team, May 2023
Awarding of VITA label (for ethical and legal standards compliance) by Swiss Biobanking Platform, June 2023
Presentation of BEReady Cohort and workshop at MCID Annual Event, July 2023
Awarding of NORMA label (for operational harmonization) by Swiss Biobanking Platform, September 2023
“Briefing aus dem Berner Grossen Rat: Vorbereitung und Reaktion auf Pandemien”, December 2023

Further information
BEReady Cohort website
Article in The SPREAD (MCID newsletter)
Contact: BEready.mcid@unibe.ch
MCID Core Activities
BioPreparedness BioBank

The BioPreparedness Biobank enables the safe storage and provision of highly pathogenic biological agents. The biobank is populated by bacteria, viruses, fungi and parasites collected from routine diagnostics, available from reference laboratories and received in the framework of collaborative research. Furthermore, a yeast-based synthetic genomics pipeline enables the safe and contained production of viral genomes and their mutated derivatives which are then stored on a long-term basis within the BioPreparedness Biobank facilities.

BioPreparedness Biobank Team
Prof. Dr. med. Stephen Leib, Institute of Infectious Diseases (IFIK)
Prof. Dr. med. vet. Jörg Jores, Institute for Veterinary Bacteriology
Dr. Aline Dousse-Bussard, IFIK

Milestones 2023
Awarding of VITA label (for ethical and legal standards compliance) by Swiss Biobanking Platform, March 2023
Presentation of BioPreparedness BioBank and workshop at MCID Annual Event, July 2023

Further information
via MCID website
Contact: mcid.biobank@unibe.ch

MCID Core Activities
Ethics and Policy Lab

The main aims of the Ethics and Policy Lab (EPL) are to bridge the gap between science and public policy and to make ethical dimensions of research and policy decisions transparent. To do so, the EPL offers a variety of services to MCID researchers and to policymakers. The EPL is also active in conducting basic research on political and ethical aspects of infectious diseases, as well as applied research and policy evaluations on behalf of public administration.

Ethics and Policy Lab Team
Prof. Dr. Dr. Claus Beisbart, Institute of Philosophy
Prof. Dr. Fritz Sager, KPM Center for Public Management (KPM)
PD Dr. Caroline Schlaufer, KPM
Dr. Caroline Brall, Institute of Philosophy

Milestones 2023
Ethics and Policy Lab workshop on ethical dimensions of research, March 2023
Awarding of SNSF NRP79 funding to EPL, March 2023
EPL awarded Food Safety and Veterinary Office mandate, April 2023
Franxini boot camp on politics, June 2023
Presentation at HealthCom 2023 by EPL Ethics Manager, Caroline Brall, June 2023

Further information
via MCID website
Articles in The SPREAD (MCID newsletter): Ethics, Policy
Contact, Ethics: caroline.brall@unibe.ch
Contact, Policy: caroline.schlaufer@unibe.ch
The Epidemiology cluster focuses its research on infections and infectious diseases at the population level, studying the distribution of, and factors affecting, infections and disease in time, place and person (or animal), and the effects of interventions for prevention and control. Cluster members use a wide range of methods for study design and analysis, including field epidemiology, biostatistics, mathematical modelling and genomic epidemiology.

**Cluster Members**

**Chair:** Prof. Dr. med. Nicola Low, Institute of Social and Preventive Medicine (ISPM)
**Co-Chair:** Prof. Dr. med. Gilles Wandeler, Department of Infectious Diseases, Inselspital / ISPM

PD Dr. Christian Althaus, ISPM
PD Dr. med. Salome Dürr, Veterinary Public Health Institute (VPH)
Prof. Dr. Lukas Fenner, ISPM
Prof. Dr. Kevin Heng, Center for Space and Habitability
Dr. Eva Maria Hodel, ISPM
Dr. Jessica Laine Carmeli, ISPM
Prof. Dr. med. vet. Heiko Nathues, Swine Clinic: Department of Clinical Veterinary Medicine
Dr. med. vet. Saskia Keller, Institute for Fish and Wildlife Health
Dr. med. Julien Riou, ISPM
Prof. Dr. Georgia Salanti, ISPM
Prof. Dr. med. vet. Simone Schuller, Small Animal Clinic
Prof. Dr. Gertraud Schüpbach, VPH
PD Dr. Ben Spycher, ISPM
Prof. Dr. Ana Maria Vicedo Cabrera, ISPM

Former Cluster Member: Prof. Dr. Emma Hodcroft (now Swiss TPH)

**Highlighted Publications**


**WildGuARDS- Accessing the “Garden Wildlife black box” to improve One Health and infectious disease epidemiology**

PD med. vet. Saskia Keller (IFIK) More information:

**Preparedness for surveillance in school rooms: multiple measure approach to estimate transmission and interventions for Covid-19 and seasonal influenza**

Prof. Dr. med. Lukas Fenner (ISPM), Prof. Dr. med. Philipp Jent (Inselspital), Pascal Bittel (IFIK), Prof. Dr. Tina Hascher (IES), Article in The SPREAD More information:

**Overcoming barriers to breastfeeding in Switzerland during infectious disease pandemics**

PD Dr. med. Petra Stute (Inselspital), Prof. Dr. David Ginsbourger (IMSV), PD Dr. Ben Spycher (ISPM), Dr. Rowan Iskandar (SITEM).

**An integrative One Health network to monitor and characterize influenza A viruses circulating in the human and pig population**

PD Dr. Ronald Dijkman (IFIK), Prof. Dr. med. Andri Rauch (Inselspital), Prof. Dr. med. vet. Heiko Nathues (Swine Clinic), Dr. Jenna Kelly (Vet) Vetsuisse, Prof. Dr. med. Philipp Latzen (Kinderklinik), Prof. Dr. med. Manuela Funk-Chambour (DBMR / Inselspital), Prof. Dr. med. Gilles Wandeler (ISPM / Inselspital), Dr. med. Cédric Hirzel (Inselspital), PD Dr. Franziska Suter-Riniker (IFIK) More information:

**menoBalance App: Use of AI methods to design a personalised chronic and infectious disease management medical device**

Prof. Dr. med. Petra Stute (Inselspital), Prof. Dr. David Ginsbourger (IMSV), PD Dr. Ben Spycher (ISPM), Dr. Rowan Iskandar (SITEM). More information:

**Divided pandemic society and Public Health. Polarization in the Covid-19 pandemic response in Switzerland**

Prof. Dr. Avnika Fransa (ISPM), Prof. Markus Freitag (Political Science), Prof. Dr. med. Nicola Low (ISPM) Article in The SPREAD More information:

**Co-infection of Hepatitis B virus (HBV) and malaria: from population level to immunological and cellular interaction**

Prof. Dr. Volkert Heussler (ZIB), Prof. Dr. med. Gilles Wandeler (ISPM / Inselspital), Prof. Dr. Olivier Guerat (ARTORG).

**MCID-funded projects (**)**

Early detection for early action: integrating multiple data sources for monitoring the SARS-CoV-2 epidemic in near real-time

PD Dr. Christian Althaus (ISPM), Prof. Dr. med. Guido Belich (Inselspital / DBMR), Dr. med. Julian Riou (ISPM), Prof. Dr. Raphael Sznitman (ARTORG), Dr. Alban Ramette (IFIK), Prof. Dr. Kevin Heng (ISPM), Prof. Dr. Alexander Leichtle (Inselspital). Article in The SPREAD More information:

**WildGuARDS- Accessing the “Garden Wildlife black box” to improve One Health and infectious disease epidemiology**

PD med. vet. Saskia Keller (IFIK) More information:

**Preparedness for surveillance in school rooms: multiple measure approach to estimate transmission and interventions for Covid-19 and seasonal influenza**

Prof. Dr. med. Lukas Fenner (ISPM), Prof. Dr. med. Philipp Jent (Inselspital), Pascal Bittel (IFIK), Prof. Dr. Tina Hascher (IES), Article in The SPREAD More information:

**Overcoming barriers to breastfeeding in Switzerland during infectious disease pandemics**

PD Dr. med. Petra Stute (Inselspital), Prof. Dr. David Ginsbourger (IMSV), PD Dr. Ben Spycher (ISPM), Dr. Rowan Iskandar (SITEM). More information:

**An integrative One Health network to monitor and characterize influenza A viruses circulating in the human and pig population**

PD Dr. Ronald Dijkman (IFIK), Prof. Dr. med. Andri Rauch (Inselspital), Prof. Dr. med. vet. Heiko Nathues (Swine Clinic), Dr. Jenna Kelly (Vet) Vetsuisse, Prof. Dr. med. Philipp Latzen (Kinderklinik), Prof. Dr. med. Manuela Funk-Chambour (DBMR / Inselspital), Prof. Dr. med. Gilles Wandeler (ISPM / Inselspital), Dr. med. Cédric Hirzel (Inselspital), PD Dr. Franziska Suter-Riniker (IFIK) More information:

**menoBalance App: Use of AI methods to design a personalised chronic and infectious disease management medical device**

Prof. Dr. med. Petra Stute (Inselspital), Prof. Dr. David Ginsbourger (IMSV), PD Dr. Ben Spycher (ISPM), Dr. Rowan Iskandar (SITEM). More information:

**Divided pandemic society and Public Health. Polarization in the Covid-19 pandemic response in Switzerland**

Prof. Dr. Avnika Fransa (ISPM), Prof. Markus Freitag (Political Science), Prof. Dr. med. Nicola Low (ISPM) Article in The SPREAD More information:

**Co-infection of Hepatitis B virus (HBV) and malaria: from population level to immunological and cellular interaction**

Prof. Dr. Volkert Heussler (ZIB), Prof. Dr. med. Gilles Wandeler (ISPM / Inselspital), Prof. Dr. Olivier Guerat (ARTORG).

More information:
Highlighted Publications (*)


Cluster Members

Chair: Prof. Dr. med. Manuela Funke-Chambour, Department of Pulmonary Medicine, Inselspital and Lung Precision Medicine, Department of Biomedical Research
Co-Chair: Prof. Dr. med. Thomas Sauter, Department of Emergency Medicine, Inselspital
Prof. Dr. med. Christoph Aebi, Pediatric Infectious Disease Unit, Inselspital
Prof. Dr. med. Lia Rolly, Department of Diabetes, Endocrinology & Nutritional Medicine, Inselspital
Prof. Dr. med. Guido Beldi, Department of Visceral Surgery & Medicine, Inselspital
Prof. Dr. David Ginsbourger, Institute of Mathematical Statistics and Actuarial Science
PD Dr. med. Gunar Günther, Department of Pulmonary Medicine, Inselspital
Dr. med. Philipp Jent, Department of Infectious Diseases, Inselspital
Prof. Dr. med. Alexander Leichtle, University Institute of Clinical Chemistry, Inselspital
Prof. Dr. med. Philippe Schucht, University Clinic for Neurosurgery, Inselspital
Prof. Dr. med. Katharina Stegmayer, University Hospital of Psychiatry & Psychotherapy
Prof. Dr. med. Petra Stute, Department of Obstetrics and Gynecology, Inselspital
Prof. Dr. Raphael Sznitman, ARTORG center for Biomedical Engineering Research

Cluster Members

* MCID Patient-Focused Research Cluster Members underlined
MCID Research Clusters
Society and Law

Meeting the challenge of unknown infectious diseases at a broader, societal level, while maintaining democratic decision making and ethically acceptable practices: The aim of the Society and Law cluster is to investigate social factors that influence a pandemic, social consequences of wide-spread infectious diseases and actual and possible societal reactions to these threats with the ultimate aim of informing and guiding future decision making. The cluster combines the perspective of social science with methods from legal analysis and ethics.

Cluster Members
Chair: Prof. Dr. Dr. Claus Beisbart, Institute of Philosophy
Co-Chair: Prof. Dr. Fritz Sager, KPM Center for Public Management (KPM)
Prof. Dr. Silke Adam, Institute of Communication and Media Studies
Dr. Caroline Brall, Institute of Philosophy
Prof. Dr. Mirjam Egggen, Institute of Civil Law
Prof. Dr. Annika Frahsa, Institute of Social and Preventive Medicine
Dr. Susanne Hadorn, KPM
Prof. Dr. Markus Freitag, Institute of Political Science
Prof. Dr. Tina Hascher, Institute of Educational Science
Prof. Dr. Andreas Müller, Institute of Philosophy
PD Dr. Caroline Schlaufer, KPM
Dr. Bettina Zimmermann, Institute of Philosophy

Highlighted Publications (*)
Zimmermann, B.M., Buyx, A., McLennan, S. (2023). Newspaper coverage on solidarity and personal responsibility in the COVID-19 pandemic: A content analysis from Germany and German-speaking Switzerland. SSM - Population Health.

(*) MCID Society and Law Cluster Members underlined

MCID-funded projects (*)
Ethical Considerations of the Relationship and Interactions between Science, Policy and the Media during the COVID-19 pandemic
Dr. Bettina Zimmermann (Philosophy). More information.
Prof. Dr. Annika Frahsa (ISPM). More information.
Preparing the mainstream media for the next pandemic – understanding under which conditions conspiracy-related mainstream media content fosters conspiracy beliefs
Prof. Dr. Silke Adam (ICMB). More information.
Blame deflection during the Covid-19 crisis
Dr. Susanne Hadorn (KPM). More information.
Comparing the crisis resilience of national policy advisory systems during Covid-19
Prof. Dr. Fritz Sager (KPM). More information.
Covid-19: Science, Narratives and Policy
Dr. Caroline Schlaufer (KPM). More information.
Preparedness for surveillance in school rooms: multiple measure approach to estimate transmission and interventions for Covid-19 and seasonal influenza
Prof. Dr. med. Lukas Fenner (ISPM), Prof. Dr. med. Philipp Jent (Inselspital), Dr. Pascal Bittel (IFIK). Prof. Dr. Tina Hascher (IES). More information.

* MCID Society and Law Cluster Members underlined
**Cluster Members**

Chair: Prof. Dr. Stephanie Ganal-Vonarburg, Department of Biomedical Research (DBMR) / Department of Visceral Surgery and Medicine (UVCM), Inselspital

Co-Chair: Prof. Dr. Artur Summerfield, Institute of Virology and Immunology (IVI) / Department of Infectious Diseases and Pathobiology

Prof. Dr. Martin Bachmann, DBMR

Prof. Dr. Olivier Guenat, ARTORG Center for Biomedical Engineering Research

Prof. Dr. Siegfried Hapfelmeier-Balmer, Institute of Infectious Diseases

Dr. med. Cédric Hirzel, Department of Infectious Diseases, Inselspital

Prof. Dr. Sebastian Leidel, Department of Chemistry, Biochemistry and Pharmaceutical Sciences

Prof. Dr. med. Andrew Macpherson

Dr. Emilie Seydoux, Division of Pediatric Respiratory Medicine and Allergology, Inselspital / DBMR

Prof. Dr. Tim Rollenske

**Highlighted Publications (†)**


**MCID-funded projects (†)**

Interplay of infections and the microbiota on outcomes for host health

Prof. Dr. med. Andrew Macpherson (DBMR / Inselspital), Prof. Dr. Volker Heussler (IZB). More information:

Klebsi-mAb: characterisation of intestinal antibody responses

Prof. Dr. Tim Rollenske (DBMR). More information:

Boosting influenza-specific adaptive responses using an adjuvant composed of bacterial lysates

Dr. Emilie Seydoux (Inselspital / DBMR). More information:

Co-infection of Hepatitis B virus (HBV) and malaria: from population level to immunological and cellular interaction

Prof. Dr. Volker Heussler (IZB), Prof. Dr. med. Gilles Wandeler (ISPM / Inselspital). More information:

An integrative One Health network to monitor and characterize influenza A viruses circulating in the human and pig populations

PD Dr. Ronald Dijkman (IFIK), Prof. Dr. med. Andri Rauch (Inselspital), Prof. Dr. med. vet. Heiko Nathues (Swine Clinic), Dr. Jenna Kelly (IVI / Vetsuisse), Prof. Dr. med. Philipp Latzin (Kinderklinik), Prof. Dr. med. Manuela Funk- Chambour (DBMR / Inselspital), Prof. Dr. med. Gilles Wandeler (ISPM / Inselspital), Dr. med. Cédric Hirzel (Inselspital). PD Dr. Franziska Suter-Riniker (IFIK). More information:

* MCID Immunity Cluster Members underlined
MCID Research Clusters

Microbiology

The Microbiology cluster covers diverse aspects of research on microbial pathogens that cause infectious disease and have pandemic potential. Research areas include host-pathogen interactions, diagnostics, One Health challenges, disease models, sentinel systems, biosafety and biosecurity in the overarching framework of pandemic preparedness.

Cluster Members

Chair: Prof. Dr. med. Stephen Leib, Institute of Infectious Diseases (IFIK)
Co-Chair: Prof. Dr. med. vet. Jörg Jores, Institute for Veterinary Bacteriology (IVB)
PD Dr. Marco Alves, Institute of Virology and Immunology (IVI) / Vetsuisse
PD Dr. Eduard Babychuk, Institute of Anatomy
Prof. Dr. Charaf Benarafa, IVI / Vetsuisse
Dr. Pascal Bittel, IFIK
PD Dr. Ronald Dijkman, IFIK
Dr. Aline Dousse-Bussard, IFIK
Dr. Evangelos Karousis, Department of Chemistry, Biochemistry and Pharmaceutical Sciences
Dr. Jenna Kelly, IVI / Vetsuisse
Dr. Fabien Labroussaa, IVB
PD Dr. Philippe Plattet, Department of Clinical Research and Veterinary Public Health
Prof. Dr. med. vet. Horst Posthaus, Department of Infectious Disease and Pathobiology
PD Dr. Alban Ramette, IFIK
Prof. Dr. med. Andri Rauch, Department of Infectious Diseases, Inselspital
Dr. Kathrin Summermatter, IFIK
PD Dr. Volker Thiel, IVI / Vetsuisse

Highlighted Publications (*)


Leichtle (Inselspital).

Preparedness for surveillance in school rooms: multiple measure approach to estimate transmission and interventions for Covid-19 and seasonal influenza

More information:


PD Dr. Marco Alves (IVI / Vetsuisse). More information.

PD Dr. Stephen Leib (IFIK). More information.

PD Dr. Raphael Sznitman (ARTORG), PD Dr. Alban Ramette (IFIK), Prof. Dr. Kevin Heng (CSH), Prof. Dr. Alexander Leichtle (Inselspital). Article in The SPREAD. More information.


PD Dr. Stephen Leib (IFIK). More information.

PD Dr. Marco Alves (IVI / Vetsuisse). More information.

PD Dr. Raphael Sznitman (ARTORG), PD Dr. Alban Ramette (IFIK), Prof. Dr. Kevin Heng (CSH), Prof. Dr. Alexander Leichtle (Inselspital). Article in The SPREAD. More information.

PD Dr. Eduard Babychuk, Institute of Anatomy
PD Dr. Obdulio Garcia-Nicolas (IVI / Vetsuisse; Career Development Grant recipient). More information.

PD Dr. Charaf Benarafa, IVI / Vetsuisse
Dr. Pascal Bittel, IFIK
PD Dr. Ronald Dijkman, IFIK
Dr. Aline Dousse-Bussard, IFIK
Dr. Evangelos Karousis, Department of Chemistry, Biochemistry and Pharmaceutical Sciences
Dr. Jenna Kelly, IVI / Vetsuisse
Dr. Fabien Labroussaa, IVB
PD Dr. Philippe Plattet, Department of Clinical Research and Veterinary Public Health
Prof. Dr. med. vet. Horst Posthaus, Department of Infectious Disease and Pathobiology
PD Dr. Alban Ramette, IFIK
Prof. Dr. med. Andri Rauch, Department of Infectious Diseases, Inselspital
Dr. Kathrin Summermatter, IFIK
PD Dr. Volker Thiel, IVI / Vetsuisse

MCID-funded projects (*)

Deciphering the interplay between viral proteins and host cell mRNA metabolism

Dr. Evangelos Karousis (IVIB). Article in The SPREAD. More information.

Role of sheep and rodent reservoirs for Wesselsbron, a neglected zoonotic flavivirus

Prof. Dr. Charaf Benarafa (IVI / Vetsuisse); Dr. Obdulio Garcia-Nicolas (IVI / Vetsuisse; Career Development Grant recipient). More information.

An integrative One Health network to monitor and characterize influenza A viruses circulating in the human and pig population

PD Dr. Ronald Dijkman (IFIK); Prof. Dr. med. Andri Rauch (Inselspital); Prof. Dr. med. vet. Heiko Nathues (Swine Clinic, Vetsuisse); Dr. Philipp Lauch (Institute of Pathobiology). More information.

Confronting the rising epidemic of the zoonotic tick-borne encephalitis virus

Prof. Dr. med. Stephen Leib (IFIK); PD Dr. Marco Alves (IVI / Vetsuisse). More information.

Tailer-made bacteriophages: treatment of infections caused by multi-drug resistant bacteria

Dr. Fabien Labroussaa (IVI, Vetsuisse Faculty); Prof. Dr. med. Stephen Leib (IFIK). Article in The SPREAD. More information.

Liposomal nanotrap: non-antibiotic compounds for the treatment of entero-pathogenic infections in humans and farm animals


Early detection for early action: integrating multiple data sources for monitoring the SARS-CoV-2 epidemic in near real-time

PD Dr. Christian Althaus (ISPIM), Prof. Dr. med. Guido Beldi (Inselspital / DBMR), Dr. med. Julien Rieu (ISPIM), Prof. Dr. Raphael Sznitman (ARTORG), PD Dr. Alban Ramette (IFIK), Prof. Dr. Kevin Heng (CSH), Prof. Dr. Alexander Leichtle (Inselspital). Article in The SPREAD. More information.

Preparedness for surveillance in school rooms: multiple measure approach to estimate transmission and interventions for Covid-19 and seasonal influenza

More information:
MCID Research Clusters

Neglected Diseases

Applying advanced modeling and cutting-edge imaging approaches to understand co-infections and co-morbidity with other diseases. Neglected diseases in the Global South harbour unforeseen pandemic potential, which is increasing through major changes in climate and accelerated movement of goods and people. Basic research into pathogen variance and biology allows the narrowing down and characterization of infectious diseases that have the potential to cause pandemics.

Cluster Members

Chair: Prof. Dr. Volker Heussler, Institute of Cell Biology (IZB)
Co-Chair: Prof. Dr. med. Hansjakob Furrer, Department of Infectious Diseases, Inselspital
Prof. Dr. Carmen Faso, IZB / Vetsuisse Faculty / Institute of Infectious Diseases (IFIK)
Dr. Obdulio García-Nicolás, Institute of Virology and Immunology (IVI)
Prof. Dr. Deborah Stroka, Department of Biomedical Research / Department of Visceral Surgery and Medicine, Inselspital
Prof. Dr. med. Philipp Latzin, Division of Respiratory Medicine, Department of Pediatric Medicine, Inselspital
Prof. Dr. Britta Lundström-Stadelmann, Department of Infectious Disease and Pathobiology

Highlighted Publications (*)


MCID-funded projects (*)

The evolution of senescence and insecticide resistance in vector populations
Prof. Dr. Deborah Stroka (DBMR / Inselspital), Article in The SPREAD, More information:

Co-infection of Hepatitis B virus (HBV) and malaria: from population level to immunological and cellular interaction
Prof. Dr. Volker Heussler (IZB), Prof. Dr. med. Gilles Wandel (ISPM / Inselspital), Prof. Dr. Olivier Guenat (ARTORG), More information:

* MCID Neglected Diseases Cluster Members underlined
Fostering of Talent
Early Career Researchers

The MCID currently funds 11 grants awarded to early career researchers (ECRs); three as part of multi-applicant projects. 2023 has been a year of exciting career development for a number of MCID ECRs, with successful obtaining of MCID ECR grants contributing to career advancement. Through MCID project funding, 19 PhD students are currently employed at a range of different University of Bern faculties, and take an active role in MCID activities.

Career Development Highlights 2023

Prof. Tim Rollenske: Emmy Noether Fellowship and tenure-track professorship, University of Bonn from Feb. 2023.
PD Dr. Caroline Schlaufer: Habilitation, University of Bern, May 2023.
Dr. Susanne Hadorn: Professorship and Institute co-direction, University of Applied Sciences Northwestern Switzerland from Feb. 2024.

MCID-funded projects (*)

A decision-making framework under severe uncertainty for optimizing future pandemic responses
Dr. Rowan Iskandar: Project finalised April 2023. Article in The SPREAD.

menoBalance App: Use of AI methods to design a personalised chronic and infectious disease management medical device
Prof. Dr. med. Petra Stute (Inselspital), Prof. David Ginsbourger (IMSV), Dr. Ben Spycher (ISPM), Dr. Rowan Iskandar: Project finalised. More information.

MCID-supported PhD student highlights 2023

MCID-funded projects were presented at a wide-range of academic conferences during the course of 2023, with three PhD students winning prizes for posters presenting MCID-funded projects: Isabel Schultz-Pernice at the EMBL Symposium “Organoids: modelling organ development and disease in 3D culture”, Simone Leoni at the European Congress of Clinical Microbiology & Infectious Diseases (ECCMID) 2023 (both project), Aziz Mert Ipekci at the Graduate School of Health Sciences symposium 2023 (project).
Teaching highlights 2023

MCID Colloquium on Pandemic Preparedness: Autumn 2023 saw the launch of the MCID’s first Colloquium on Pandemic Preparedness, a course aimed at Bachelor and Master students, and in particular exchange students. Development of the course was supported by the University of Bern Vice Rectorate Development “Additional Courses in English- EnglL” scheme. The aim of the course was to provide a multidisciplinary introduction to pandemic preparedness, focusing both on biomedical and on societal aspects of preparing for infectious disease threats. The colloquium was designed around the scientific discipline cluster structure of the MCID and over a series of seven sessions, MCID experts from each cluster conducted lectures and led hands-on exercises and discussion sessions.

MCID Seminar Series: In early 2023, the MCID launched a multidisciplinary seminar series, inviting expert speakers from a range of scientific topic areas and with seminars being suitable for interest parties of all disciplines. Topics to date have included policy aspects in antibiotic research and development, immune escape of SARS-CoV-2 and public trust in health systems.

Teaching on ethics and policy: The MCID Ethics and Policy Lab have been active in providing teaching and training on i) the ethical dimensions of research and how to obtain ethical approval and ii) on politics and policymaking, with a focus on the Swiss political system (held together with the Franxini Project)

Outreach highlights 2023

MCID newsletter, The SPREAD: In early 2023, the MCID launched The SPREAD, a newsletter aimed at communicating MCID research and ongoing activities, as well as providing exciting spotlights on a wide range of different topics linked to infectious diseases and pandemic preparedness.

Public engagement in 2023: the MCID and its Members were involved in a range of public-facing events in 2023, including: the BEready Cohort team at the Pint of Science Bern event, “Briefing aus dem Berner Grossen Rat” and a lecture by Dr. Eva Maria Hodel on Pandemic Preparedness to the University of Bern “Seniorenuniversität”; the “Divided pandemic society and Public health” project team in focus group discussions (ongoing), MCID Member Prof. Dr. Rudolf Blankart on antibiotic resistance with the Round Table on Antibiotics at the sitem-insel 2023 open day.

MCID Members share expertise in the media: MCID Members have been active in engagement with the Swiss media, including: Prof. Dr. med. vet. Gertraud Schüpbach on the spread of avian influenza; Prof. Dr. Dr. Claus Beisbart on artificial intelligence; Prof. Dr. med. vet. Artur Summerfield on African Swine fever; and Prof. Dr. Silke Adam and team on fake news and disinformation in the media.

MCID Co-Leading role in Cluster of Research Excellence, Genomics for Health in Africa: In June 2023, Genomics for Health in Africa (CoRE-GHA) was awarded status of ARUA-The Guild Cluster of Research Excellence, to be Co-Lead by Prof. Dr. Carmen Faso and Prof. Dr. Volker Thiel, MCID Co-Chairs, together with Prof. Dr. med. Shahida Moosa and Prof. Dr. Tulo de Oliveira at Stellenbosch University and Prof. Dr. med. Olaf Riess and Prof. Dr. med. Tobias Haack at the University of Tubingen. The primary aim of CoRE-GHA will be capacity building on the African continent for the application of genomics to tackle infectious diseases, rare diseases and rare cancers. As part of outreach linked to CoRE-GHA, Prof. Dr. Carmen Faso had the opportunity of meeting with the South Africa Parliament’s Portfolio Committee on Higher Education, Science and Innovation on their tour of Switzerland (image below).