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## Welcome

## **Introduction by the Organisers**

Running a bit more than two decades into the 21st century, it is becoming increasingly evident that antimicrobial resistance (AMR) is one of the most pressing societal problems for humankind. Without vigorous counteractions, we risk losing our most precious tools in medicine, namely the miracle weapons called antibiotics.

Unfortunately, the necessary measures to combat AMR are not simple to define, agree upon, finance and implement. Rather to the contrary, curbing AMR needs the concerted action of politicians, governments, universities, researchers, health care providers, medical doctors, veterinarians, livestock producers, regulators, start-up companies, big pharmaceutical companies and finally also the general public.

To mitigate the risks of AMR, we need effective stewardship measures, better surveillance data, and an economic climate incentivising investments into the development of novel antibiotics. Hence, we urgently need simultaneous innovation at these diverse levels to control the AMR problem.

As for global warming, the spread of AMR is a slow and insidious process. This makes it particularly hard to fight against, as there is no immediate urgency. Hence, politicians and governments can postpone decision processes without immediately risking a catastrophic escalation of the problem.

Finally, AMR is a global problem. Yet, the AMR burden is unequally distributed on the globe. The current AMR burden is clearly more heavy in low and middle income countries (LMICs) such as India as compared to more wealthy European countries such as Switzerland. But as we all know, AMR does not stop at borders and we need to find effective ways to curb AMR at the global level, and not "just" within single countries.

## Welcome

As a team of Swiss and Indian researchers active in AMR research and with the wholehearted support of Swissnex in India, we initiated this Indo-Swiss AMR innovation dialogue having a simple vision in mind. Let us learn from each other about how our countries tackle and deal with the AMR problem. Let us jointly identify areas where we can work together and find common ground for innovative projects. And let us build a network of experts who know and trust each other and align their ideas in view of the challenging years that are ahead of us because of the growing AMR crisis.

We would like to thank all delegates for their time and commitment to this event. We aspire that this meeting will offer a unique and lasting experience for everyone involved. And we see it as the perfect occasion to initiate a platform for a long-term AMR partnership between India and Switzerland.

As the organisers, we wish you an interesting and inspiring exchange, and last but not least, also a lot of joy and fun.

**Prof Patrick Viollier** 

Professor, UniGe

Prof Sunish Radhakrishnan

Associate Professor, IISER Pune

Dr Lena Robra

Head of Academic Engagement, Swissnex in India Prof Markus Seeger

Prof Anjana Badrinarayanan

Associate Professor, NCBS

Prof Varadharajan Sundaramurthy

Associate Professor, NCBS

## Schedule

DAY 1	29 October Sunday		DAY 2	30 October Monday		DAY 3	31 October Tuesday
			06.00	Morning Activity Bird Watching			
08.15	Breakfast NCBS Canteen		08.00	Breakfast NCBS Canteen		08.15	Breakfast NCBS Canteen
09.30	Welcome Welcome Address by the Organisers	•	08.30	Talks Session 4 Vaccines, Phages and Innovative Diagnostics to Tackle AMR	•	09.00	Talks Session 7 Innovative Approaches to Detect and Eliminate Pathogens
10.00	Talks Session 1  AMR Action Plans and Their Implementation by Governmental Bodies	-	09.45	Talks Session 5 Infection Control and Antimicrobial Stewardship in Practice	-	10.00	Talks Session 8 The Role of NGOs in the Global Fight Against AMR
11.00	Tea Break		11.10	Tea Break		11.00	Tea Break
11.20	Talks Session 2 Innovative Approaches to Strengthen AMR Surveil- lance and Shape Effective Stewardship Programs	-	11.25	Talks Session 6 Economic Aspects in Tackeling AMR	-	11.20	Talks Session 9 Taking it to the Next Level - Company's Perspectives on AMR R&D
12.35	Lunch NCBS Canteen		12.30	Lunch NCBS Canteen		12.30	Lunch NCBS Canteen
13.30	AMR Workshop An Indian Village Through the Lens of AMR and One Health		13.30	AMR Workshop C-CAMP AMR Innovation Workshop		13.30	Closing Session Auditorium/ Conference Hall
	<u>Detailed Agenda</u>			A Deep-Dive Into the Indian AMR Innovation Ecosystem <u>Detailed Agenda</u>		14.00	Individual Meetings NCBS Colonnade, Scheduled on Demand
17.00	Talks Session 3 Views across Scales: From Bacterical Communities to Antibiotic Targets	-	17.30	Launch Indo-Swiss Innovation Platform	-		
19.00	Dinner NCBS Canteen		19.00	Dinner Formal Dinner Reception with further AMR Stakeholders		19.30	Optional Dinner Druid Garden (Local Microbrewery)



## **Policy and AMR Action Plans**

## Sessions 1 & 8

AMR is now recognised as a public health threat by many governments and organisations like the World Health Organisation and the World Economic Forum. The climate crisis is expected to further exacerbate AMR in equatorial regions in the coming years. While global problems require commensurate action plans on a global scale, in the short term, national action plans should be easier to implement, albeit with less pervasiveness. India was one of the first countries to come up with a national AMR action plan in 2017, following which several Indian states developed their own action plans. Yet, the implementation of action plans, dedicated policies or clear-cut governmental commitments is often lagging behind, in India and other countries. The ultimate goal must be to advance unified schemes in which governmental support provides incentives for the private sector to engage in AMR action plans, be it through development of new antimicrobial small molecules or other (atypical) approaches to mitigate AMR, including improved AMR stewardship across sectors.

Additionally, higher income countries are increasing pressure on supply-chain transparency for antibiotic manufacturing in India, while low manufacturing capacities in their own country create a dependence on major drug production sites as India.

What approach is best suited to drive investment into AMR plans from public and private funds forward, on the national and (ideally) on the international level, and what kinds of schemes are simplest and unrestrictive to implement across boundaries? Should international not-for-profit organisations be assigned with the task of overseeing such efforts to eliminate national biases? Can we learn from national trial plans in select countries that have initiated schemes and improve them for an efficient Indo-Swiss bond to address this challenge? This session will set the stage to elaborate challenges and strategies in this endeavour.



**Prof Patrick Viollier** 

Professor in Microbiology and Molecular Medicine

University of Geneva



## AMR Action Plans and Their Implementation by Governmental Bodies

## Session 1

This session gives a first impression of the AMR challenges in Switzerland and India, and outlines how governmental organisations implement and control AMR action plans.

## Chairs

## Dr Sanjeev K. Singh

#### **Chief Medical Superintendent**

Amrita Institute of Medical Sciences, Amrita Vishwa Vidyapeetham Kerala

**Biography** 

#### **Mr Yann Ferisse**

**Director of Business Development** 

Global Antibiotic Research and Development Partnership

**Biography** 

## **Speakers**

#### Prof Dr R. Aravind

Head of the Department of Infectious Diseases

Government Medical College Trivandrum

**Biography** 

### **Mr Simon Gottwalt**

Project lead, Swiss Antibiotic Resistance Strategy Human Sector

Federal Office of Public Health Switzerland

**Biography** 

### Dr Anuj Sharma

National Professional Officer and Technical Focal Point for AMR Labs and infection prevention and control

WHO Country Office for India

**Biography** 

#### **Dr Ravindra Agarwal**

Medical Doctor Chief Coordinator AMR containment Delhi

Lok Nayak Hospital Delhi



## The Role of NGOs in the Global Fight Against AMR

## Session 8

NGOs have historically played a key role in the global fight against infectious diseases, and they are important players in the global fight against AMR. Their contributions range from evidence-based policy-making to developing easy-to-implement diagnostic tests and making novel antibiotics available to Low and Middle Income Countries (LMIC). In this session, we wish to learn their viewpoint on what needs to change at the political level to curb AMR.

## Chairs

### Dr Anuj Sharma

National Professional Officer and Technical Focal Point for AMR Labs and infection prevention and control

WHO Country Office for India

**Biography** 

### **Prof Rudolf Blankart**

President

Swiss Round Table on Antibiotics

**Biography** 

## **Speakers**

#### Dr Sindura Ganapathi

Fellow

Office of the Principal Scientific Adviser to the Government of India

**Biography** 

#### **Dr Chitra Pattabiraman**

Independent Researcher

**Biography** 

#### **Mr Yann Ferrisse**

**Director of Business Development** 

Global Antibiotic Research and Development Partnership

**Biography** 

#### **Dr Sanjay Sarin**

Vice President

Foundation for Innovative New Diagnostics

## **Theme**

## One Health

## Sessions 2 & 5

AMR cannot be addressed in the context of human needs or human contribution only. It needs to be looked at in the context of One Health wherein we need to understand, measure and eventually address the interlinkages of AMR with human, animal and environmental health. For this, it is necessary to build robust surveillance and stewardship systems that on the one hand, can aid evidence-based decision-making for governments, health care systems, and policymakers and, on the other hand, drive change on the ground by providing a framework that can be embraced by the people in change enabling positions, such as doctors, pharmacists, patients and the general public.

The use of antimicrobials in animal husbandry, discharge of antibiotics and other antimicrobial residues into the environment during manufacturing processes and indiscriminate availability of antibiotics link animal, environmental and human health and play a significant role in the rise of AMR. They are, therefore, essential elements to be addressed in the effort to curb AMR from a holistic perspective. The concerned authorities and stakeholders of these elements act too often in isolation, often not even speaking to each other or exchanging data in a way that allows the needed concerted action. However, of late, governments recognise the importance of increased environmental surveillance to improve pandemic preparedness but also in the context of AMR. This is evident by the prominence of AMR discussions during this year's G20 Health track in India.



**Dr Lena Robra** 

Head of Academic Engagement

Swissnex in India



# Innovative Approaches to Strengthen AMR Surveillance and Shape effective Stewardship Programs

## Session 2

This session is dedicated to AMR surveillance and will outline the current technical possibilities of AMR surveillance, as well as the challenges to store, analyse and share such surveillance data. Further, it will outline the challenges to implementing surveillance and stewardship programs across the various One Health sectors efficiently.

## Chairs

### **Prof Jörg Jores**

Director Infectious Diseases and Pathobiology

Institute of Veterinary Bacteriology

University of Bern

**Biography** 

## **Speakers**

### **Prof Adrian Egli**

Director

Institute of Medical Microbiology University of Zurich

**Biography** 

#### **Dr Michael Gasser**

Epidemiologist and Deputy Head

Swiss Centre for Antimicrobial Resistance (ANRESIS) University of Bern

**Biography** 

#### **Prof Utpal Tatu**

Chairman and Professor Department of Biochemistry

Indian Institute of Science

**Biography** 

## Prof Balaji Veeraghavan

Professor of Clinical Microbiology

Christian Medical College and Hospital Vellore

**Biography** 

## Dr Dhanasekaran Shanmugam

Senior Principal Scientist

CSIR- National Chemical Laboratories, Pune



## **Infection Control and Antimicrobial Stewardship in Practice**

## Session 5

This session will focus on the specific challenges in hospitals to control the spread of infections and implement antimicrobial stewardship measures. Specifically, we would like to understand what level of diagnostic and epidemiological information is relevant to them, and how this helps to de-escalate antibiotics therapy and minimises the spread of AMR within the hospital and beyond.

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### Prof Balaji Veeraghavan

Professor of Clinical Microbiology

Christian Medical College and Hospital Vellore

**Biography** 

#### **Prof Adrian Egli**

Director

Institute of Medical Microbiology University of Zurich

Biography

## **Speakers**

### **Prof Annelies Zinkernagel**

**Director of Department** 

Department of Infectious Diseases and Hospital Epidemiology University Hospital Zurich, University of Zurich

**Biography** 

## Dr Sanjeev K. Singh

Chief Medical Superintendent

Amrita Institute of Medical Sciences, Amrita Vishwa Vidyapeetham Kerala

**Biography** 

#### **Prof Jan Fehr**

Head of Department and Professor for Global Health and Mobility

Department of Global Health and Mobility University of Zurich

**Biography** 

### Dr Sagar Khadanga

Associate Professor, Coordinator Madhya Pradesh State Action Plan for Containment of Antimicrobial Resistance

All India Institute of Medical Science Bhopal

**Biography** 

#### **Prof Taypritesh Sethi**

Head Centre of Excellence in Healthcare & Associate Professor

Indraprastha Institute of Information Technology Delhi

**Biography** 

#### Dr Dhanya Dharmapalan

Consultant

Paediatrics Infectious Diseases Apollo Hospitals

## **Theme**

## **Fundamental Research in AMR**

## Sessions 3 & 7

Fundamental research in the field of AMR is very diverse and largely driven by curiosity to understand mechanisms and discover biological insights. For this reason, fundamental research is sometimes criticised to be untargeted, and thus not directly contributing to tangible solutions tackling AMR.

On the other hand, without fundamental research we would lack the tools and the theoretical framework to discover novel antibiotics and to predict the resistance patterns and virulence capacity of pathogenic bacteria based on sequencing data.

Fundamental research is key to elevate our mechanistic understanding on how AMR works at the molecular level. It provides the means to discover novel targets for antimicrobial therapy, and it innovates methods to gain access to novel reservoirs of natural compounds with antimicrobial activity. Further, fundamental research is key to understanding the physiology of bacterial infections both from the human and the bacterial side and thereby provides means to engineer devices, as well as cellular model systems that allow for a more realistic screening of antimicrobial compounds. Fundamental research is critical to develop more effective vaccines and diagnostic tests. Omics techniques are crucial to understand bacterial communities such as microbiomes in unprecedented detail.

Creating a framework for researchers to take up fundamental research problems in AMR and work with stakeholders across sectors to translate their discoveries into actionable methods and technology is critical to the success of AMR. This thematic track is an opportunity for this to happen, so that even more fundamental researchers will be inspired to take up challenges related to AMR.



Prof Varadharajan Sundaramurthy

Associate Professor

National Centre for Biological Sciences



## Views Across Scales: From Bacterial Communities to Antibiotic Targets

Session 3

This session shall showcase the innovation potential of academic researchers and their role in exploring new concepts and creative ideas that bring the AMR field forward.

## Chairs

### **Prof Sunish Radhakrishnan**

Associate Professor

Indian Institute of Science Education and Research Pune

**Biography** 

### **Prof Christoph Dehio**

Research group leader and Director NCCR AntiResist

Biozentrum, University of Basel

**Biography** 

## **Speakers**

#### **Prof Pascale Vonäsch**

Professor Department of Fundamental Microbiology

University of Lausanne

**Biography** 

#### **Prof Sebastian Hiller**

Professor for Structural Biology and Biophysics

Biozentrum, University of Basel

**Biography** 

## Prof Varadharajan Sundaramurthy

**Associate Professor** 

National Centre for Biological Sciences

**Biography** 

### **Prof Ranjana Pathania**

Professor Department of Biosciences and Bioengineering

Indian Institute of Technology Roorkee

Biography

#### **Prof Nishad Matange**

Assistant Professor, Biology

Indian Institute of Science Education and Research (IISER), Pune



## **Innovative Approaches to Detect and Eliminate Pathogens**

## Session 7

This session shall showcase the innovation potential of academic researchers and their role in exploring new concepts and creative ideas that bring the AMR field forward.

## Chairs

### **Prof Ranjana Pathania**

Professor Department of Biosciences and Bioengineering

Indian Institute of Technology Rorkee

**Biography** 

#### **Prof Patrick Viollier**

Professor Department of Microbiology and Molecular Medicine

University of Geneva

**Biography** 

## **Speakers**

#### **Prof Amit Singh**

Associate Professor Microbiology and Cell Biology

Indian Institute of Science

**Biography** 

#### **Prof Pilar Junier**

Professor in Microbiology

University of Neuchatel

**Biography** 

#### **Prof Christoph Dehio**

Research group leader and Director NCCR AntiResist

Biozentrum, University of Basel

**Biography** 

### **Prof Jörg Jores**

Director Infectious Diseases and Pathobiology

Institute of Veterinary Bacteriology University of Bern



## Innovation in Therapeutics and Diagnostics

Sessions 4 & 9

The growing AMR problem calls for ingenuity towards devising new therapies as well as designing fast and accurate diagnostic methods. Most of the fundamental research in designing new therapeutic interventions are happening in publicly funded academic research institutions. To develop a potential therapeutic agent into a product, pharmaceutical companies play an indispensable role as they have the experience and capacity to plan and run clinical trials and to bring products to the market. However, for economic reasons, the AMR sector is less financially attractive for pharmaceuticals which in turn impedes innovation.

How can we overcome this stalemate in antibiotic development, while benefiting and potentially harnessing the revenue from new diagnostic products used in the clinics? There are two sessions under this theme discussing possibilities and challenges in discovering innovative strategies against AMR.



**Prof Sunish Radhakrishnan** 

Associate Professor

Indian Institute of Science Education and Research Pune



## Vaccines, Phages and Innovation Diagnostics to Tackle AMR

## Session 4

This session showcases university-based translational programs and start-ups developing innovative approaches to rapidly diagnose infections, to treat them by alternative means such as phages, and to prevent infections by vaccination.

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#### **Dr Chitra Pattabiraman**

### **Dr Kenneth Bradley**

Independent Researcher

VP and Global Head Infectious Disease Discovery

F. Hoffman-La Roche

**Biography** 

## **Speakers**

### **Dr Reety Arora**

Senior Scientist

CrisprBits

Biography

**Biography** 

## **Dr Bhavesh Choudhary**

Head of Department Recombinant Vaccines & Biotherapeutics

Serum Institute of India

**Biography** 

#### **Dr Michael Kowarik**

Chief Scientific Officer

LimmaTech Biologics AG

**Biography** 

#### **Dr Minal Dakhave**

General Manager R&D

Mylab Discovery Solutions Pvt Ltd

**Biography** 

### Dr Shawna McCallin

Group Leader of Phage Therapy & Research

University of Zurich, Research Balgrist University Hospital



## Taking It to the Next Level: Company's Perspectives on AMR R&D

Session 9

This session focuses on clinical-stage antibiotic development programs and the challenges that are associated with clinical trials, regulatory hurdles and market considerations.

## Chairs

## Dr Dhanasekaran Shanmugam

Senior Principal Scientist

CSIR- National Chemical Laboratories Pune

**Biography** 

#### **Dr Martin Heidecker**

Chief Investment Officer

AMR Action Fund Basel Office

**Biography** 

## **Speakers**

#### **Dr Vasan Sambandamurthy**

Senior Vice President: Strategy and Operations

Bugworks Research India Pvt Ltd

**Biography** 

#### **Dr Glenn Dale**

Chief Development Officer

Bioversys AG

**Biography** 

#### Dr Man-Wah Tan

Vice President and Senior Fellow Department of Infectious Diseases

Genentech Inc.

**Biography** 

## **Dr Kenneth Bradley**

VP and Global Head Infectious Disease Discovery

F. Hoffman-La Roche



## **Economic Aspects in Tackling AMR**

## Session 6

The antibiotic development void can be mostly attributed to a lack of investor appetite in the AMR market, because it is simply not lucrative enough. Owing to antimicrobial stewardship programs, novel antibiotics should only be given to patients if there is no alternative available, which limits the market size for novel antibiotics. Further, antibiotics have been historically very cheap, and in light of their contribution to human health and safety, they are ridiculously undervalued. It has been broadly recognized that novel reimbursement models are needed to make the AMR market more attractive as a whole, which are generally known as pull-incentives. A key element of pull incentives is to decouple antibiotic usage from the revenues a company selling novel antibiotics makes, in order to comply with antimicrobial stewardship programs.

Another economic aspect that is often underestimated are the societal and healthcare costs attributed to AMR. These costs are likely to increase massively in the coming decades, making it at least in theory very rewarding to invest into measures to curb AMR in individual countries and globally alike. Unfortunately, the economic framework conditions do not change at the required speed to ensure the development of novel antibiotics at the scale we will need them in the years to come. The main reason for the slow process is the necessity to convince national governments to change their policies in order to massively increase their budgets to fix the broken antibiotics market.

We are delighted to have a handful of delegates here at this meeting who have extensive knowledge on the economic aspects of AMR and who know what would be needed to overcome the antibiotics development void.



#### **Prof Markus Seeger**

**Associate Professor** 

Institute of Medical Microbiology University of Zurich

<u>Biography</u>



## **Economic Aspects in Tackling AMR**

## Session 6

This session will shed light on the economic framework of the AMR space, which has been underfunded for several decades and suffers from a broken market.

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#### **Dr Anand Anandkumar**

CEO and Co-Founder

Bugworks Research India Pvt Ltd

**Biography** 

### **Prof Markus Seeger**

**Associate Professor** 

Institute of Medical Microbiology University of Zurich

**Biography** 

## **Speakers**

### Mr Douglas Häggström

Manager

Incubator for Antibiotic Therapies Europe Making Innovation a Reality – African Health Initiative Innovation Office University of Basel

**Biography** 

#### **Dr Martin Heidecker**

Chief Investment Officer

AMR Action Fund Basel Office

**Biography** 

### **Prof Rudolf Blankart**

President

Swiss Round Table on Antibiotics

**Biography** 

## Dr Madhav Joshi

**Chief Executive Officer** 

India Health Fund

**Biography** 

### **Dr Taslimarif Saiyed**

Director and CEO

Centre for Cellular and Molecular Platforms

## An Indian Village Through the Lens of AMR and One Health

Context

An important element to the success of the global fight against AMR is understanding how the challenge takes shape on the ground. This field visit is an opportunity to provide a grassroots context to the discussions taking place at the Indo-Swiss AMR Innovation Dialogue.

We will go by bus to Bettahalsoor, a village about 30 minutes from the conference venue. We aim to provide a glimpse into the complexity of the on ground situation while providing a framework to make sense of it all.

We hope this visit will prompt the participants to share their own grassroots experiences. The tangible and intangible takeaways should influence the collaborations and discussions that will occur for the rest of the meeting and beyond.

Please assemble at the NCBS reception no later than 1.20 pm. We will split into groups, each of the groups will go through each of the elements described below.



13:20 Assembly NCBS Reception

A walk through the village will give an understanding of the environment and ecosystem of an Indian village from an AMR and one health perspective. Focus will be on how domestic animals are housed and taken care of, the private and public health facilities provided (both veterinary and human health) and infrastructure at a family and village level as well as access to medicines, antimicrobials and pharmaceuticals. We will also briefly touch upon farming practices.

Interaction with healthcare workers and doctors of the government public health system will be organised. By creating a safe space for freely engaging and talking with the participants of the AMR Innovation dialogue we will facilitate an open conversation with a focus on AMR. Discussion topics will centre around the prevalence and occurrence of infectious diseases, treatment, and socio economic conditions that influence the health choices individuals, families and community leaders make.

A visit to a small poultry farm owned and managed by a family in the village will round off the visit. This is to give a glimpse of how animals are taken care of and the workings of a small business model that is operated across the country. We will let the family speak for themselves so we can understand how they use antibiotics, the level of their awareness and the socio economic conditions that drive their decisions.

## A Deep-Dive Into the Indian AMR Innovation Ecosystem

## Context

The escalating global health crisis of AMR needs to be addressed with innovative approaches across therapeutics, diagnostics, surveillance, and stewardship across One Health domains.

India has a vibrant innovation and entrepreneurial ecosystem that may hold the key to building newer solutions that can bend the curve on AMR in India, and beyond. The Centre for Cellular and Molecular Platforms (C-CAMP) is a premier Bioinnovation Hub of the country and is thus well-poised to propel initiatives in AMR by nurturing innovative solutions emerging from varied domains and geographies.

C-CAMP anchors the multi-stakeholder convergent platform- India AMR Innovation Hub (IAIH) that is working to address the challenges of AMR by leveraging the collective expertise, networks, and resources of its stakeholders and partners. The IAIH fosters trans-disciplinary, multi-sectoral, and inclusive approaches and has made steady progress by enabling comprehensive, cohesive, and coordinated efforts towards India's National Action Plan (NAP) on AMR.

C-CAMP has been nurturing AMR Innovations through its various programs and projects over the past few years, in collaboration with key international and national partners and stakeholders. With the launch of the WAAH! Accelerator in December 2022, C-CAMP is now also anchoring multinational efforts in AMR by promoting multi-lateral cooperation for AMR-centric innovations.

The workshop 'Accelerating Innovations to Bend the Curve of Antimicrobial Resistance', curated and anchored by C-CAMP as part of the Indo-Swiss AMR Innovation Dialogue, will spotlight promising AMR innovations supported by C-CAMP, and will deep dive into perspectives from key partners that



**Dr Taslimarif Saiyed** 

Director and CEO

Centre for Cellular and Molecular Platforms

**Biography** 



**Dr Swati Subodh** 

Programme Lead-AMR

Centre for Cellular and Molecular Platforms

C-CAMP has collaborated with to deliver high-impact AMR programs. The intent of the workshop is to identify synergies and opportunities across borders that would be instrumental in fast-tracking innovative solutions to address the global challenge of AMR.

About C-CAMP: Centre for Cellular and Molecular Platforms (C-CAMP), is a deep science innovation enabling ecosystem located within the Bengaluru Life Science Campus (BLiSc) campus. C-CAMP is a key enabler of deep science innovations with competencies across research, development, training, and services through its state-of-the-art technology platforms. C-CAMP is supported by the Department of Biotechnology, Ministry of Science and Technology, Government of India.

To know more, visit <u>www.ccamp.res.in</u>



## Accelerating Innovations to Bend the Curve of Antimicrobial Resistance

13:20 - 13:45	Welcome and Introduction to C-CAMP  Opening Remarks and Context Setting
13:45 - 14:00	Remarks by the Indo-Swiss delegation
14:00 - 15:00	Innovations for AMR
15:00 - 15:45	Guided tour of C-CAMP facilities
15:55 - 16:30	Perspectives and Insights from global stakeholders
16:30 - 17:30	Video message by the Principal Scientific Adviser to the Government of India
	Signing of Agreement between Swissnex and C-CAMP: Tripartite partnership as part of the WAAH! Accelerator, under the aegis of the India AMR Innovation Hub (IAIH)
	Invited Talk and Panel Discussion
	Closing Remarks

We request everyone to make their way to 'Dasheri' immediately after the session for the Indo-Swiss Innovation Platform Launch.

## Launch

## **Indo-Swiss Innovation Platform**

### **Dear AMR Dialogue Participants,**

The Indo-Swiss AMR Innovation Dialogue that you are all a part of is not meant to be a one-off activity, as is too often the case. In fact, it marks an important moment in the Indo-Swiss relations, because with it we are launching the Indo-Swiss Innovation Platform.

The Innovation Platform will serve as a tool through which we aim to give the Indo-Swiss collaboration a more strategic and systemic dimension, moving beyond ad hoc-only collaborations. To that end, we have identified a few areas where the opportunities for deeper collaboration are clear, plausible and relevant to both countries. The idea of the Platform is to consider matters beyond initial conversations in a planned and thorough manner that lead to tangible, measurable outcomes in the health, sustainability and digital transformation spaces.

You will not just participate in the formal launch event of the Indo-Swiss Innovation Platform on Monday, October 30, but your very presence epitomises what we are trying to do: to seed multidisciplinary communities of practice that will sprout into new collaborations tackling pressing challenges at the intersection of academia and industry.

We have worked hard to ensure that the next call of the Indo-Swiss Joint Research Programme (JRP), a bilateral funding instrument, will align its thematic focus with the discussions that you will have during the AMR Dialogue in Bangalore. We look forward to many of you taking advantage of this and submit your joint research proposals when the call opens.

This marks a new chapter for us at Swissnex in India, for our partners at the Embassy of Switzerland to India and Bhutan and the Swiss Business Hub India. We are delighted that you are a part of it and we are grateful for the important work that you do.

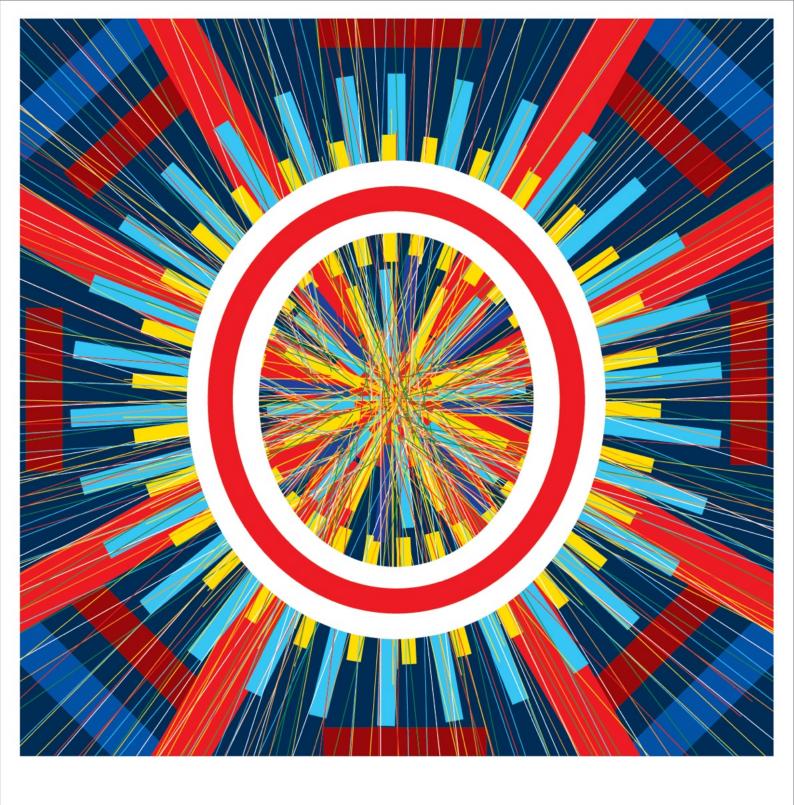
May our time together lead to something great.

Fair winds and following seas,

Mr Jonas Brunschwig CEO and Consul General

Swissnex in India

Consulate General of Switzerland in Bengaluru



# Indo-Swiss Innovation Platform Launch

Monday, October 30, 2023 NCBS Campus, 5:30 pm











## **Helpful Information for Your Stay**

# Conference & Accommodation Venue

National Centre for Biological Sciences

GKVK Campus, Bellary Road 560065 Bengaluru

Reception Desk: +91-80-2366-6001

All talks of the Indo Swiss AMR Innovation Dialogue will take place in 'Malgova'.

The launch of the Indo Swiss Innovation Platform will take place in 'Dasheri'.

## Primary Point of Contact

Chandrakant Redican Academic Engagement Manager Swissnex in India

chandrakant.redican@swissnex.org
Mobile/Whatsapp: +91-7338683501

Swissnex Emergency Number: +91-80-4941-2000

### Internet

Connect to 'NCBS Hotspot' with your device and follow the instructions.

## Things to Bring with You

- Some cash in Indian Rupees, we recommend about 100 CHF.
- Outdoor worthy shoes for the field trip!
- Your swimming trunks if you'd like to make use of the pool on campus.
- Binoculars if you plan to join the birdwatching (not mandatory).

### Food

Meals will be organised for the participants at reserved spaces in the main canteen on the 29th, 30th and 31st of October. Breakfast will be served downstairs, lunch and dinner upstairs.

Food and beverages are available to participants at any of the campus canteen and cafeteria facilities listed below and the main canteen. The prices are extremely subsidized, expect to spend between 3 rupees for a cup of tea and 50-100 INR for a meal. That amount translates roughly to 0.1 to 1 CHF.

Glass roof canteen (at the main canteen):
 Timing: 12.30 PM till 9 PM at night
 Menu: Coffee, tea, omelette, sandwiches

Academic canteen:
 Timing: 10 AM- 4.30 PM

Menu: Tea, coffee, sandwiches, snacks

C-CAMP canteen:
 10 AM to 5 PM
 Tea, coffee and snacks

## Birdwatching

The NCBS Campus is located within the 1200 acre University of Agricultural Sciences and home to numerous birds, including peacocks and the red whiskered Bulbul. For a more complete list of recent sightings, read <a href="here">here</a>. Avid bird watcher Ronith Urs will take us for an early morning walk of about 60-90 minutes, starting and ending at the conference venue. If you are a citizen scientist you could download ebird and submit your sightings.

If you wish to join for it please drop an email at chandrakant.redican@swissnex.org.

## Other Things to Do On Campus

## **Swimming**

The swimming pool is open from 7.30 AM to 1.30 PM and from 4.15 PM to 8 PM, except Monday mornings. A swimming cap is mandatory for hair longer than an inch, towels are available for 15 INR.

## **Sport Facilities**

The gym is open from 6 AM to 9 PM. Other sports facilities include an indoor badminton court, a tennis court, a basket-ball court, two squash courts, table tennis and a foosball table. Usage of any of the indoor facilities requires non-marking shoes. It is required to carry one's own sporting equipment.

## **Archives at NCBS**

The Archives at NCBS is a public collecting centre for the history of life science in contemporary India. It is one of the few of its kind in South Asia. It is located in the old NCBS main building, visiting hours are 10 AM- 5 PM, Monday-Friday. If you want to talk more with them in depth or want a tour, you can pre-book a time by emailing them at archives@ncbs.res.in.

For more information on the archives click here.

## On the Location

The conference is hosted at the <u>National Centre for Biological Sciences</u> (NCBS). NCBS is an internationally established research institute focusing on fundamental research in biological sciences ranging from cell biology to ecology. It was formally established in October 1991 and awards degrees ranging from MSc by Research to PhD. The current director of NCBS is Professor LS Shashidhara, developmental biologist and geneticist by background. Past directors of NCBS include Professor K Vijay Raghavan who served as the Principal Scientific Advisor to the Government of India after his post at NCBS. NCBS is also home to the <u>Simon Centre for the Study of Living Machines</u>.

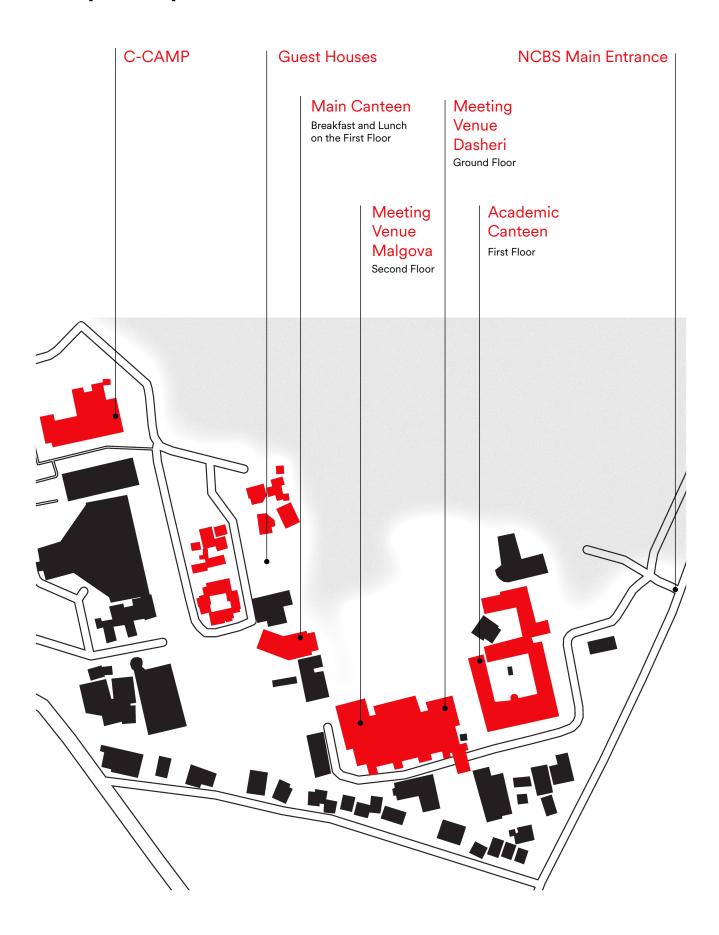
NCBS is a part of the Bengaluru Life Science Cluster (BLiSc) which refers to the cluster of scientific institutions hosted on campus. Other institutes that are part of BLiSc are:

- Institute of Stem Cell Science and Regenerative Medicine (InStem): InStem focuses on stem cell research and the application of the same in India and is a major contributor on the international stage in stem cell biology while also being committed to social outreach.
- Centre for Cellular and Molecular Platforms (C-CAMP):
   C-CAMP is a deep-science tech incubator which houses start ups in agritech and life sciences and provides services and training to scientists as well as start ups. Earlier this year C-CAMP and the Functional Genomic Centre Zurich conducted a training course on RNA sequencing at C-CAMP.
- Tata Institute of Genetics and Society (TIGS):
   TIGS is a not for profit research institute that aspires to
   develop solutions to challenges in human health and ag riculture. TIGS is a unique initiative of the Tata Trusts to
   support applications of cutting-edge science and tech nology in genetics and genomics to solve societal prob lems of the country. TIGS is headed by Swiss alumnus Dr
   Rakesh Mishra.

The vision of the cluster is to have an integrated multi-disciplinary and interactive bioscience and technology research enterprise, which will result in path-changing scientific discoveries, and the translation of these into tangible technological advances.



## **Campus Map**



## What's Next?



Thank you for joining the Indo-Swiss AMR Innovation Dialogue in Bengaluru, we hope you had a good time! We see this as the beginning of stronger Indo-Swiss collaboration in AMR and in the long term One Health. Here are a few opportunities to continue the engagement right away:

- The next Indo-Swiss Joint Research Programme Call provides for multi year academic research funding, which will be on AMR and One Health and is expected to be announced soon.
- The ThinkSwiss research scholarship provides Indian Bachelor and Master students with a living allowance to pursue research at a Swiss Research institute or university for up to three months. The program currently accepts applications.
- The Indo Swiss Innovation Platform is meant to provide the framework for bringing conversations of the Indo-Swiss AMR Innovation Dialogue to the next level.

With best regards,

Markus, Patrick, Sunish, Lena, Varadha and Chandrakant



Biographies



Prof Adrien Egli
Director
Institute of Medical Microbiology
University of Zurich

Professor Adrian Egli studied medicine at the University of Basel (MD in 2004) and completed his PhD in Immunology and Virology in 2008. He is a board-approved specialist in Medical Microbiology. He has led the diagnostic laboratory for bacteriology and mycology at the University Hospital Basel from 2015 until 2022. In 2022, Professor Egli joined the Institute of Medical Microbiology at the University of Zurich as Director. His research focuses on the host-pathogen interaction and how pathogens adapt in terms of antimicrobial resistance and virulence.

In the context of AMR, Professor Egli is researching and developing rapid diagnostics for AMR and molecular epidemiology. Professor Egli sees AMR as a tremendously important medical problem for which it is necessary to find solutions addressing diagnostic challenges and also a better understanding of the epidemiology.



Prof Amit Singh
Associate Professor
Microbiology and Cell Biology

Indian Institute of Science

Professor Amit Singh conducted his PhD on the pathogenesis and gene regulation of M. tuberculosis (Mtb). His postdoc at the University of Alabama at Birmingham, USA, with Dr Adrie Steyn, was on mechanisms of redox homeostasis in M. tuberculosis. In 2010, he started his lab at the International Centre for Genetic Engineering and Biotechnology, New Delhi, where he developed a redox biosensor of M. tuberculosis and revealed redox heterogeneity and how redox regulates drug tolerance in this human pathogen. Since 2014, he has worked at IISc Bengaluru, where his group exploited interdisciplinary strategies to dissect the redox basis of persistence in human pathogens M. tuberculosis and HIV. By taking advantage of redox biosensors, XF-flux analyses, omics-based strategies, and animal studies, his work has helped find new mechanisms of how a macrophage's acidic pH mobilises drug tolerance in M. tuberculosis and how the antimalarial drug chloroquine can be used to potentiate the action of anti-TB drugs during infection.



**Dr Anand Anandkumar**CEO and Co-Founder

Bugworks Research India Pvt Ltd

Dr Anand is the founding CEO of Bugworks, a US and India based company solving the global antibiotic crisis using novel techniques to design next-generation antibiotics. Prior to Bugworks, Dr Anand was co-founder of Cellworks, a company that pioneered the use of computational biology for personalised cancer care.

His specialties cover the semiconductor and bio-pharma industry, with emphasis in setting up and managing international operations particularly out of India and China. His experience covers managing operations, R&D groups, worldwide business development and sales channels.



Prof Anjana Badrinarayanan Associate Professor

National Centre for Biological Sciences

Prof Anjana Badrinarayanan laboratory works to understand fundamental regulatory mechanisms that govern the activity of genomic error-correction pathways, and how this can drive genome evolution under genotoxic stress. After finishing her PhD at the University of Oxford, she joined NCBS in 2016 and is now an associate professor. In 2019 she was awarded the distinguished Har Gobind Khorana-Innovative Young Biotechnologist Award in recognition of her work.



Prof Annelies Zinkernagel
Director of Department

Department of Infectious Diseases and Hospital Epidemiology

University Hospital Zurich, University of Zurich

Annelies Zinkernagel, MD PhD, is trained in infectious diseases, internal medicine, and experimental microbiology. She is the clinic director of the Department of Infectious Diseases and Hospital Hygiene at the University Hospital Zurich and chair of Infectious Diseases and Hospital Hygiene at the University of Zurich.

Her research focuses on Staphylococci, Streptococci and bacterial pathogen-host interactions. Her group aims to understand resistance and virulence mechanisms for the identification of novel targets for anti-infective therapy and the pathogenesis of chronic infections associated with biofilms and persisters, as well as studying the potential of boosting the host's innate immune system by increasing the microbicidal capacity of phagocytes aiming to prevent bacterial relapse. She is the president of the European Society of Clinical Microbiology and Infectious Diseases and a member of the Swiss Federal Commission for Vaccinations.



**Dr Anuj Sharma**National Professional Officer and Technical Focal Point for AMR

Labs and infection prevention and control

WHO Country Office for India

Dr Anuj Sharma is a medical doctor with an MD in medical microbiology with over 30 years of clinical and public health experience. He has worked with over 15 WHO country offices, including WHO regional offices for Southeast Asia and Western Pacific, and WHO headquarters. His work focussed on the development of national policies, strategies, action plans and technical guidance on AMR, laboratory strengthening, infection prevention and control (IPC) and eHealth. He coordinated the establishment of the Indian Network for Surveillance of Antimicrobial Resistance (INSAR) – India's first AMR surveillance network.

He coordinated the work of two cross-cutting working groups on AMR and laboratories while working at the WHO regional office for the Western Pacific in Manila. He is co-author of the WHO Global Report on AMR Surveillance, 2014 and started working in his current position as National Professional Officer and Technical Focal Point for AMR, Labs and infection prevention and control in 2016.



Prof Balaji Veeraraghavan
Professor of Clinical Microbiology
Christian Medical College and Hospital

Vellore

Professor Balaji is a medical doctor with an MD in Medical Microbiology. He obtained his PhD from the Christian Medical College & Hospital in 2006 and pursued a post-doc from Tufts Medical School, Boston, USA in infectious disease. He is a member of the Alliance for Prudent Use of Antibiotics (APUA) 2008-2009 and a Fellow of the Royal College of Physicians of London in 2018.

He has over 380 published papers and is currently part of 13 national and seven international projects related to research and surveillance in the area of AMR. His areas of particular interest are Infectious disease diagnostics stewardship, AMR characterisation and surveillance, and vaccine-preventable invasive bacterial disease surveillance.



**Dr Bhavesh Choudhary**Head of Department Recombinant
Vaccines & Biotherapeutics

Serum Institute of India

Dr Bhavesh Choudhary is a Scientific strategist with over 20 years of experience in pharma and biotech R&D across various esteemed organisations in Asia and Europe.

He is a biotechnologist (cell biology, molecular biology and immunology) by training with a PhD and a postdoc in oncology and immunology. He is highly skilled in developing and managing biologics (New Biologic Entity(NBE)/ Biosimilars) and New Chemical Entity (NCE) drug development programs across various disease areas. He has rich experience driving a translational research team and lead candidate profiling for regulatory submission. He also has extensive experience in setting up novel biologics/ biosimilar R&D Pipeline and commercialisation.

He is dedicated to creating an innovative, goal-oriented business culture in a team, and is responsible for setting up new departments, quality analysis, quality control and regulatory landscape for drug approval.



Chandrakant Redican
Academic Engagement Manager

Swissnex in India

Chandrakant Redican is the Academic Engagement Manager of Swissnex in India. He has previously managed health technology impact projects across India in his time at C-CAMP, a deep science and innovation hub in Bangalore and was the Communications and Outreach Manager for NCBS, one of India's top life science research institutions.

Before this Chandrakant was a college lecturer for 4 years running a food science and technology course. He has worked as a researcher at IISER Pune, the National Centre for Cell Science and the Pune University Zoology Department.

He is also a performance poet and designed and taught India's first slam poetry course at Symbiosis College, Pune.



Dr Chitra Pattabiraman Independent researcher

Dr Chitra Pattabiraman is a virologist and molecular biologist who uses genomic tools to identify pathogens, particularly in brain infections. She works at the interface of emerging infections and public health in India – particularly in pathogen genomics.

She obtained her integrated MSc-PhD in biological sciences from NCBS Bengaluru and was awarded a postdoc fellowship to work with the Brain Infections Group at the University of Liverpool. She was then awarded the India Alliance Early Career Fellowship to work at the Department of Neurovirology at the National Institute of Mental Health and Neuroscience (NIMHANS), Bengaluru following which she was the Practice Head for infectious diseases at Strand Life Sciences. She was the Chief Scientific Officer at the Infectious Diseases Research Foundation and works now as an independent research consultant.

For the last two years, she has been tracking the introduction, spread and emergence of variants of SARS-CoV-2 in Karnataka. She develops tools to visualise and analyse this data and is looking forward to understanding what sort of genomics solutions are needed and to what extent this tool can be used in different contexts for the surveillance of AMR.



Prof Christoph Dehio
Research group leader and Director NCCR
AntiResist

Biozentrum, University of Basel

Professor Christoph Dehio received his PhD in genetics from University of Cologne in 1992 for a thesis work with Professor Jeff Schell at the Max Planck Institute for Plant Breeding in Cologne, Germany. For his post-doctoral research, he joined Professor Philippe Sansonetti at Institut Pasteur in Paris.

From 1995-2000, he was a research group leader at the Max Planck Institute for Biology in Tübingen, Germany. In 2000, he obtained a tenure-track assistant professorship at Biozentrum, University of Basel, Switzerland. Four years later, he was promoted to tenured associate professor, and in 2011 to full professor. Since this year, he is Director of the National Centre of Competence in Research (NCCR) AntiResist: New approaches to combat antibiotic resistant bacteria (2020-2032). During his career, Christoph Dehio has received numerous awards, including the Robert Koch Postdoctoral Award, Pfizer Research Award and the Research Award of the German Society of Hygiene and Microbiology.



Dr Dhanasekaran Shanmugam

Senior Principal Scientist

CSIR- National Chemical Laboratories Pune

Dr Dhanasekaran Shanmugam runs the molecular parasitology lab in Council of Scientific and Industrial Research -National Chemical Laboratory (CSIR-NCL), Pune. He is a biochemist with a PhD from the Indian Institute of Science, Bengaluru, where he studied porphyrin biosynthesis in the human malaria parasite Plasmodium falciparum. His post-doctoral training was in Prof David Roos's lab at the University of Pennsylvania, Philadelphia, USA.

In his laboratory at CSIR-NCL, they use the apicomplexan parasites Plasmodium falciparum and Toxoplasma gondii as models to study the drug mechanism of action and resistance, particularly focusing on drug and inhibitors acting on metabolic functions associated with the mitochondria and plastid organelles of these parasites. His lab has developed Oxford Nanopore technology-based sequencing protocols for genotyping human malaria drug resistance from clinical samples. Further, they use the ONT protocol to detect dairy animal pathogens and associated AMR and drug resistance.



Dr Dhanya Dharmapaln
Consultant
Paediatrics Infectious Diseases
Apollo Hospitals

Dr Dhanya Dharmapalan is a consultant in paediatric infectious diseases at Apollo Hospitals, Navi Mumbai, India. She is the national coordinator of the Apollo Antimicrobial Stewardship Programme (for over 70 Apollo hospitals). She earned her MD degree from University of Pune, India and then pursued a postgraduate diploma degree in paediatric infectious diseases from University of Oxford. She is currently serving as the Chair of the AMR Working group of the International Paediatric Association (IPA) (2023-2025). She is also a colead of the global health subcommittee of Paediatric Infectious Disease Society (PIDS), USA since 2018.

She has served as an editor of over eighteen paediatric text-books and numerous research publications in peer reviewed journals. She has been part of several writing committees of rational antibiotic practice modules of the Indian Academy of Paediatrics. She has received several awards and has been honoured as a Fellow by the Indian Academy of Paediatrics (in 2019) and the Paediatric Infectious Disease Society, USA (in 2023).



Mr Douglas Häggström Manager

Incubator for Antibiotic Therapies Europe

Making Innovation a Reality – African Health Initiative

Innovation Office University of Basel

Mr Douglas Häggström joined the Incubator for Antibiotic Therapies Europe (INCATE) management team in June 2021, where he focuses on community building and partnerships. INCATE is the leading early stage pipeline coordinator in Europe for antibiotic therapies.

In addition to INCATE, Douglas has a role at the University of Basel Innovation Office developing innovation programs including the Swiss Leading House Africa. The Innovation Office of the University of Basel is active in AMR with programs in stewardship (Spearhead) and functions as host to the National Competence Centre for Research- AntiResist.

Douglas has worked to build start-up communities in health-care since 2015 including co-founding the DayOne initiative. He has previously worked in consulting, teaching, media, pharma and fintech industries.



**Dr Glenn Dale**Chief Development Officer

Bioversys AG

Dr Glenn Dale is the Chief Development Officer of BioVersys. He is a distinguished expert in infectious diseases, the author of numerous publications, and inventor on many patents. Since Feb 2019 Glenn has led the clinical development activities at BioVersys, applying his 25 years of R&D experience and significant knowledge in the modern development of antibiotics.

Glenn obtained his PhD in Biochemistry in 1993 from the University of Basel. Following postdoc studies in Basel he has held the following positions; group leader at Roche, Head of Biology, site head at Morphochem AG and scientific coordinator responsible for pre-clinical research at Arpida. From 2009 to 2019 Glenn worked at Polyphor where he led antibiotic research and early development, successfully transitioning Murepavadin (POL7080) from pre-clinical activities to Phase 3 studies.

Glenn is an expert in developing and implementing modern antibiotic clinical development plans (e.g. devising pathogen specific development).



Dr Jan Fehr
Head of Department and Professor for
Global Health and Mobility
Department of Global Health and Mobility

University of Zurich

Prof Jan Fehr, MD, specialises in internal medicine and infectious diseases with long-term experience in addressing Global Health Challenges. He is currently the Head of the Department of Public & Global Health at the Epidemiology, Biostatistics and Prevention Institute (EBPI) at the University of Zurich (UZH) and a member of the directorate management body of EBPI at UZH. He is also the head of the Travel Medicine Clinic of UZH. Since 2020, he has played a leading role in Switzerland's coronavirus response. He is a Co-Founder and Executive Board Member of the national 'Corona Immunitas' study platform.



Jonas Brunschwig
CEO/Consul General

Swissnex in India

Jonas Brunschwig is the CEO of Swissnex in India and Consul General of Switzerland, where he connects Switzerland's education, research, and innovation ecosystem to India with the aim to foster activities that pursue inclusive prosperity, urgent progress, and a vibrant exchange. Prior to joining the team in India, he led Swissnex in Boston's academic portfolio for six years. He is a graduate of MIT where he studied innovation ecology, with a focus on sub-Saharan Africa. He also held positions at MIT in fundraising, at the Boston Global Forum in international affairs, and at Uncharted Play (now Uncharted Power) in social entrepreneurship. Before moving to India, he has lived in Switzerland, Egypt, Argentina, and the United States.



**Prof Jörg Jores**Director Infectious Diseases and Pathobiology

Institute of Veterinary Bacteriology

University of Bern

Professor Jörg Jores graduated from vet school in Berlin in 1996. Subsequently, he did his doctorate conducting research on Vibrio that had been isolated from the Baltic Sea at the German Federal Research Institute for Disease Control and Prevention (Robert Koch-Institute). He then joined the Institute of Microbiology and Epizootics at the Free University Berlin and worked as a scientific staff member doing research on intestinal pathogens such as Escherichia coli, lecturing and providing diagnostic services. From 2005 to 2016, he lived in East Africa and worked at the International Livestock Research Institute (ILRI) in Nairobi, Kenya. At ILRI, he built up a Mycoplasma research team and contributed towards the development of diagnostics and vaccines. His focus of research activities were contagious bovine pleuropneumonia and contagious caprine pleuropneumonia. Besides this, he worked on bacterial and viral diseases that affect the dromedary camel. In 2016, he took up the position as Director of the Institute of Veterinary Bacteriology at the Vetsuisse Faculty, University of Bern, Switzerland. His fields of expertise and research activities are host-pathogen interactions of mycoplasmas, synthetic genomics and diseases of the hoof.



**Dr Kenneth Bradley**VP and Global Head Infectious Disease
Discovery

F. Hoffman-La Roche

Dr Kenneth Bradley is an executive and scientist with a passion to bring novel therapeutics and cures to patients suffering from viral and bacterial diseases. Currently he is VP and Global Head, infectious disease discovery at Roche pharma Research and Early Development (pRED). Previously he served as Head of antibiotics research at Roche pRED (2015-2019). From 2002 to 2015, he was professor of microbiology, immunology and molecular genetics at the University of California Los Angeles. His academic research focused on bacterial and viral host-pathogen interactions. He also served as director of the molecular screening shared resource, a high-throughput screening facility supporting academia, biotech and pharma.



**Dr Lena Robra**Head of Academic Engagement

Swissnex in India

Dr Lena Robra is a biochemist who completed her PhD in developmental neurobiology at the National Centre for Biological Sciences (NCBS) in Bengaluru in 2017. After a postdoc at NCBS, she led the Bengaluru Sustainability Forum, anchored at NCBS. During this time, she started engaging with the One Health City Bengaluru project, an initiative under the BeST cluster of the Principle Scientific Advisor to the Government of India office. In 2021, Lena joined Swissnex as Head of Academic Engagement, where she got the chance to continue working on her interest in AMR and One Health. Lena is the lead of the Swissnex efforts contributing to the Indo-Swiss AMR Innovation Dialogue and sees this meeting as the beginning of stronger Indo-Swiss collaboration in the area of AMR and One Health.



Dr Madhav Joshi
Chief Executive Officer

India Health Fund

Dr Madhav Joshi is Chief Executive Officer of the India Health Fund – an initiative of Tata Trusts and the Global Fund which aims to help accelerate the control and elimination of communicable diseases by de-risking the development of technology-led solutions which can help improve outcomes in diagnosis, treatment and prevention, and strengthen primary care. India Health Fund has led the development of several collaborative initiatives to further this goal. Madhav has previously worked with Pfizer and Nestle in India, Europe, Africa, and Asia.



**Dr Man-Wah Tan**Vice President and Senior Fellow
Department of Infectious Diseases
Genentech Inc.

Dr Man-Wah Tan is the Vice President and a Senior Fellow at Genentech Research and Early Development based in South San Francisco, California. In his role, he heads the infectious diseases therapeutic area and host-microbe interactions research. He heads the teams responsible for the discovery and development of transformative therapeutics against hard-to-treat diseases and infectious agents of medical importance, with special emphasis on viral and bacterial pathogens. He also leads discovery efforts in unravelling the molecular basis of host-microbe interactions and investigations into the roles of the microbiota in health and disease, with focus on gastro-intestinal diseases and immuno-oncology.

After his PhD at Harvard, Dr Tan served on the faculty at the genetics department at Stanford University School of Medicine for over ten years where his lab focused on elucidating the role of innate immunity in host-pathogen interactions. He joined Genentech in 2010. At Genentech, he has contributed to the discovery of one FDA-approved medicine and six other clinical assets spanning diverse therapeutic modalities: monoclonal antibody, antibody-drug conjugate and small molecules.



Dr Maneesh Paul Founder and CEO

Microvioma

Dr Maneesh Paul was the co-inventor of anti-infective Enmetazobactam at Orchid Pharma. He is a clinical microbiologist who has pursued basic and applied research discovering novel anti-infectives and characterising several microbial genes and proteins. He has several stellar patents and publications. He has extensive research experience in infectious diseases including a postdoc in molecular mechanisms of pathogenesis of neonatal microbial meningitis at Johns Hopkins School of Medicine.

He started Microvioma (P) Ltd, India, a research-based organisation founded on verified science to participate in the fight against AMR & WHO's One Health mission. As an AMR stewardship champion, he has served as a member of the AMR Committee of the Infectious Diseases Society of America (USA) and is a member of its research committee.



Prof Markus Seeger
Associate Professor
Institute of Medical Microbiology
University of Zurich

Professor Markus Seeger is an Associate Professor at the Institute of Medical Microbiology at the University of Zurich. Research in his lab focuses on the structure and function of membrane transporters found in pathogenic bacteria, which includes multidrug efflux pumps belonging to the large class of ABC transporters, as well as lipid and siderophore transporters in Mycobacterium tuberculosis. Markus Seeger holds a PhD from the ETH Zurich (2007) and pursued postdoctoral studies in Cambridge, UK. He received a SNSF professorship in 2013 and an ERC consolidator grant in 2018. Since 2015, he leads the antibiotics platform of the Swiss association Biotechnet with the aim to foster collaboration between academic and industrial partners involved in the development of novel antibiotics and rapid diagnostics. Prof Seeger was actively involved in drafting the synthesis report for the National Research Programme "Antimicrobial Resistance" (NRP 72), where he was heading the report section "Faster diagnostics and new therapeutic approaches". Further, he acts as executive board member of non-profit Swiss association- Round Table on Antibiotics.



Dr Martin Heidecker
Chief Investment Officer
AMR Action Fund
Basel Office

Dr Martin Heidecker joined his current position in 2021, coming from Boehringer Ingelheim Venture Fund where he worked as Managing Director in USA in Cambridge, MA. He previously served as board director of ArmaGen Technologies, Inc (acquired by JCR Pharma), Tilos Therapeutics Inc. (acquired by Merck & Co Inc.), Sentien Biotechnologies Inc., Abexxa Biologics Inc. (acquired by Boehringer Ingelheim), Libra Therapeutics Inc. and Rgenta Therapeutics Inc.. Dr Martin Heidecker furthermore serves on the Board of Directors of the Massachusetts Biotechnology Council, a premier global life sciences and healthcare hub.

Dr Martin Heidecker started his career as an investor focusing on seed investments in biotechnology companies in Germany. Later, he held several international marketing positions at Solvay Pharmaceuticals and Boehringer Ingelheim in CNS and Oncology. He was involved in the launch of various drugs in the CNS space. Dr Martin holds a PhD in Biology from University of Würzburg and an MBA from FernUniversität Hagen.



**Dr Michael Gasser**Epidemiologist and Deputy Head

Swiss Centre for Antimicrobial Resistance (ANRESIS)

University of Bern

Dr Michael Gasser holds a PhD in biomedical science from the University of Bern. After training in applied statistics at the ETH Zurich, he joined the Swiss Federal Office of Public Health. He is an epidemiologist at the Swiss Centre for Antimicrobial Resistance (ANRESIS) at the University of Bern.

As an epidemiologist, he is responsible for the surveillance of human AMR in Switzerland, using various statistical approaches. Examples are the creation of personalised statistics for different stakeholders, modelling/estimating the AMR burden of Switzerland or implementing automated outbreak detection algorithms.



**Dr Michael Kowarik**Chief Scientific Officer
LimmaTech Biologics AG

As Chief Scientific Officer (CSO), Dr Michael Kowarik is responsible for LimmaTech's scientific development, focusing on pipeline development and operational R&D performance.

Michael has a PhD in biochemistry from the ETH Zurich and developed a broad experience in the biotech industry. After university, he joined GlycoVaxyn AG to develop its bioconjugation vaccine platform through its early stages. As VP of research and intellectual property (IP), he was responsible for the innovation of platform science and the collaboration with GlaxoSmithKline that culminated in GlycoVaxyn's acquisition by GlaxoSmithKline plc in February 2015. After that, Michael joined LimmaTech as a co-founder, and soon took the role of VP of business strategy and IP to drive LimmaTech's proprietary business, marking his journey into therapeutics. With the successful spin-out of the therapeutics assets into the newly formed company GlycoEra AG in January 2021, he moved back to his true scientific passion, vaccines.



**Dr Minal Dakhave**General Manager R&D

Mylab Discovery Solutions Pvt Ltd

Dr Minal Dakhave, General Manager at Mylab Discovery Solutions is a visionary leader with nearly 14 years of extensive experience in diagnostic product development & commercialization. She was involved in delivering the first COVID-19 RT PCR test kit in India and the first NAT testing kit for blood donors in Asia. Dr Minal delivered more than 75 products in diagnostics with features of sample to results, automation, point of care and innovation.

She has several honours and recognitions, including the best researcher award of 2023 and the Rising Star of the Year award in Biopharma Conclave. She was nominated for the prestigious Padma award for her contribution to society with RT PCR diagnostic solution during the COVID-19 pandemic in 2021. She was felicitated on Women's Day 2021 for Women in STEM by Resilient Cosmeceuticals, India. Additionally, she was honoured for exemplary public service during the COVID-19 pandemic by the National Commission for Minorities and the Rotary club of Pune.



Prof Nishad Matange Assistant Professor Biology

Indian Institute of Science Education and Research Pune

Prof Nishad received his PhD from the Indian Institute of Science, Bengaluru, working on Signalling pathways in Mycobacterium tuberculosis. From 2015 to 2020, he was an INSPIRE Fellow at the Indian Institute of Science Education and Research (IISER) Pune, working on the evolutionary genetics of AMR. From 2021 onwards, as an assistant professor at IISER Pune, his lab has investigated the evolutionary genetics and mechanisms of AMR.

His lab is interested in the mechanisms of AMR and how mutations evolve at different antibiotic concentrations. He has received numerous awards and fellowships, including the DBT/Wellcome India Alliance Intermediate Fellowship (2021), Ben Barres Spotlight Award, eLife (2021), SERB-Research Scientist, SERB, Govt. of India (2020) and the INSPIRE Faculty Fellowship, DST, Govt. of India (2015).



Prof Pascale Vonäsch Professor

University of Lausanne

Department of Fundamental Microbiology

professor at the University of Lausanne and a principal investigator within the NCCR Microbiomes. She was trained as a Microbiologist at the ETH in Zürich and the Ecole Normale Supérieure in Paris. Subsequently, she completed her PhD thesis at the Institute of Microbiology at the ETH in Zürich, Switzerland, on host-pathogen interactions, and a postdoctoral research stay at the Institut Pasteur, Paris, France, where she initiated and led the Afribiota project, a translational research project aimed at elucidating the pathophysiology underlying stunted child growth.

Professor Pascale Vonäsch, MSc, MPH, PhD is an assistant

She then joined the Swiss Tropical and Public Health Institute for two years as a senior postdoc/ junior group leader to continue her work on undernutrition before moving with her group to the University of Lausanne. Her lab focuses on fundamental and translational/clinical research on the human intestinal ecosystem and the contribution of the microbiota to health and disease. In her research, she is especially interested in the role of the intestinal microbiome in childhood malnutrition and in the development of microbiota-targeted interventions, as well as the role of the microbiome as a reservoir of AMR genes/strains.



Prof Patrick Viollier
Professor in Microbiology and Molecular
Medicine

University of Geneva

Professor Patrick Viollier is a bacterial geneticist and cell biologist with a PhD in microbiology from the University of Basel and a postdoc at Stanford University (USA). He teaches bacteriology to 3rd year medical students. Recently he has also run a practical course in bacteriology for third year biology students at the faculty of science and for medical students, in AMR and bacterial cell biology.

Historically his research interests have been fundamental, yet, in studying flagellum assembly in a non-pathogenic bacterium, his lab stumbled over a previously unknown and soluble O-linked protein glycosylation system in which the FlmG protein modifies the flagellin subunit with the sialic acid-like molecule pseudaminic acid. As such modifications are also known for flagellins of pathogenic bacteria, he would like to know how such post-translational modification affect innate and adaptive immune responses and is now interested in glycobiology and its biotechnological potential, but also maintains a research axis on exploring mechanisms the induction of an RND efflux pump and and the regulation of permeability of the outer membrane to antibiotics.



Prof Pilar Junier
Professor in Microbiology
University of Neuchatel

Professor Pilar Junier is the Director at the Laboratory of Microbiology, Institute of Biology, University of Neuchatel. In the context of AMR, her work focuses on developing alternative treatments for fungal pathogens. In addition to her extensive and award-winning body of research focusing on Microbe environment interactions, Prof Pilar is also deeply involved in science communication, outreach and teaching microbiology. She has won numerous awards for the same. For Prof Pilar, AMR is an international problem, and solutions should be discussed in international forums. She looks forward to an open exchange on problems, solutions and opportunities at the Indo-Swiss AMR Innovation Dialogue.



Prof Dr R. Aravind
Head of the Department of Infectious
Diseases

Government Medical College Trivandrum

Prof Dr R Aravind is the convener and focal point of the Kerala Antimicrobial Resistance Strategic Action Plan (KARSAP) working committee. The KARSAP has, to date, been the first AMR action plan in India to be implemented and has achieved tangible results on the ground.

Additionally, Dr Aravind is a member of the National Technical Committee for the formulation of the National Antimicrobial and Stewardship Guidelines, the technical committee lead for the Kerala State One Health Committee and a Kerala State Medical Board member and convener of the Kerala State Vaccine Policy Committee.



Prof Ranjana Pathania
Professor Department of Biosciences and
Bioengineering

Indian Institute of Technology Roorkee

Professor Ranjana Pathania's research focuses on antibiotic resistance in bacterial pathogens, antibacterial drug discovery through chemical genetics approach and non-coding RNAs in *Acinetobacter baumannii*. Her work employs forward chemical genetics and drug repurposing strategies to combat AMR. She also works on uncovering post-transcriptional regulation of pathogenesis and antibiotic resistance in *A. baumannii*. In AMR, Prof Pathania is looking to discover novel chemical entities that can be used in AMR (novel antibacterials, efflux pump inhibitors, adjunct molecules to revive the activity of ineffective antibiotics).



Dr Ravindra Agarwal
Medical Doctor
Chief Coordinator AMR containment Delhi

Lok Nayak Hospital Delhi

Dr Ravindra Agarwal is a medical doctor with an MD in medical microbiology. He is the chief coordinator of AMR containment, Delhi and has been instrumental in coordinating and supervising the State Action Plan to Combat Antimicrobial Resistance in Delhi (SAP-CARD) which was released in January 2020. He was awarded the state award for meritorious services by the Government of Delhi. Dr Ravindra had a WHO Fellowship on AMR at Karolinska, Stockholm, Sweden.

He has previously been associated with various health programs of the Government of India, via the Central Health Service Government of India. Notable among them are the polio eradication program and the bio-medical waste management.



Dr Reety Arora
Senior Scientist
CrisprBits

Dr Reety Arora is a molecular biologist with an expertise in tumour virology, cancer biology and CRISPR. At the University of Pittsburgh, USA, she completed her doctorate in Prof Yuan Chang and Prof Patrick Moore's laboratory, studying how Merkel cell polyomavirus causes a rare skin cancer called Merkel cell carcinoma. After a brief post-doctorate at the Institute for Stem Cell Biology, Bengaluru, she moved back to studying tumour viruses and their role in cancer, although with the perspective of stemness. She was awarded the Wellcome Trust DBT India Alliance Early Career Fellowship for this endeavour. She pursued this during her 7-year postdoctoral track under the mentorship of Prof Sudhir Krishna at the National Centre for Biological Sciences, Bengaluru. During this term, she also worked in Dr James Decaprio's laboratory at Harvard Medical School, Boston and at Dr Kurt Engeland's laboratory at the University of Leipzig, Germany. After this, she briefly consulted for Sankalp India Foundation and Capulus Therapeutics. She currently works as a senior scientist at CrisprBits.



**Prof Rudolf Blankart** 

Swiss Round Table on Antibiotics

Professor Carl Rudolf Blankart is a researcher at the KPM Centre for Public Management at the University of Bern and the Swiss Institute for Translational and Entrepreneurial Medicine. He chairs the economics cluster at the University of Bern's Multidisciplinary Centre for Infectious Diseases.

Prof Blankart's research is situated at the intersection of medicine, management, and law, and aims to improve the pathway from idea to patient. He focuses on regulatory and reimbursement frameworks for medicinal products and medical devices, exploring how these frameworks can improve health provision. Prof Blankart is particularly passionate about translating research results into practice. To this end, he is involved with the Swiss Round Table on Antibiotics and the Swiss Association for the Promotion of Self-Management. Prof Blankart is also a member of the board of directors of Decomplix AG, a company that simplifies market access for medical devices. In addition, he provides advisory services to private and public organisations on health policy and regulatory issues.



**Dr Sagar Khadanga**Associate Professor, Coordinator Madhya
Pradesh State Action Plan for
Containment of Antimicrobial Resistance

All India Institute of Medical Science Bhopal Dr Sagar Khandaga is an associate professor at All India Institute of Medical Science (AIIMS) Bhopal. His research work includes initiating AMR activities in hospitals in India, comprehensive omics studies to understand the biology of drug-resistant *Mycobacterium tuberculosis* clinical isolates from Arunachal Pradesh, blood test for all forms of active Tuberculosis for commercialization in India and capacity building and strengthening of hospital infection control to detect and prevent AMR in India.

He has been instrumental in setting up the AIIMS Bhopal regional centre for the AMR surveillance network funded by ICMR. Additionally, he has worked on the diagnostic accuracy of the foldscope and the feasibility of its use in malaria control programs under the National Vector Borne Disease Control Programme (NVBDCP) funded by the Department of Biotechnology, Government of India and estimating incremental cost of treating resistant infections in India funded by ICMR.



Dr Sanjay Sarin
Vice President
Foundation for Innovative

**New Diagnostics** 

Dr Sanjay Sarin is responsible for providing leadership for Foundation for Innovative New Diagnostics (FIND)'s strategic plan development and implementation of current and planned operations across FIND's country offices, expanding and strengthening FIND's country programmes globally while ensuring continued engagement with partners and donors. Dr Sanjay serves on the Tuberculosis Green Light Committee for WHO's South East Asia region, the lab technical working group for the National AIDS Control Organization, India, and the Global Fund's COVID-19 Technical Advisory Group reviewing COVID-19 proposals.

Before this, Dr Sanjay served as country head for FIND India for six years, providing leadership towards strategic plan development and implementation, resource mobilisation, and managing key relationships with policymakers, civil society, industry partners, and donors. He also led policy and advocacy efforts for FIND in India, positioning FIND as a key partner in health systems strengthening.

Sanjay joined FIND from Becton Dickinson (BD), where he was the regional director of global health for the Asia Pacific region and was responsible for designing, developing, and implementing BD's public health strategies.



Dr Sanjeev K Singh
Chief Medical Superintendent
Amrita Institute of Medical Sciences.

Amrita Vishwa Vidyapeetham Kerala

Dr Sanjeev K Singh is a paediatrician by training, did his masters in hospital management and holds a PhD in infection control. He worked as a regional coordinator at the WHO India, before joining as Chief Medical Superintendent at a 1350-bed university teaching superspeciality hospital in Kerala.

Dr Sanjeev is an external consultant to WHO on regulatory, licensing policy issues and quality interventions in India. He is a technical advisor to several state government healthcare projects (e-learning, reduction of AMR, antibiotic stewardship and infection control) and on infection prevention and antibiotic stewardship for the state of Kerala, India.

Besides this, he is a member of the Drug Safety Council, Government of India and a member of the healthcare committee at the Federation of Indian Chambers of Commerce of India (FICCI) and other healthcare and safety related organisations.



Prof Sebastian Hiller
Professor for Structural Biology and
Biophysics

Biozentrum, University of Basel

Professor Sebastian Hiller graduated in 2002 from ETH Zurich, Switzerland. He did his PhD in the group of Kurt Wüthrich at ETH Zurich and postdoctoral research in the laboratory of Gerhard Wagner at Harvard Medical School, Boston, USA. In 2010, Prof Hiller has an independent research group at Biozentrum Basel and is currently a full professor. His research group employs integrative structural biology techniques, particularly advanced solution NMR methods, to unravel the molecular mechanisms of biomacromolecules at the atomic level. Key topics are molecular chaperones and their interaction with client proteins and the elucidation of the biophysical principles underlying their function; the mechanisms of protein folding into the bacterial outer membrane and its inhibition by novel antibiotics; the structural biology of the innate immune response; and dynamic mechanisms of kinases. He is a member of the Swiss National Centre for Competence in Research- AntiResist.



**Dr Shawna McCallin**Group Leader of Phage
Therapy & Research

University of Zurich, Research Balgrist University Hospital

Dr Shawna McCallin is a group leader and clinical researcher at the Department of Neuro-Urology, Phage Therapy & Research Group at Balgrist University Hospital, University of Zürich. In the context of AMR, Prof Shawna works on developing phage therapy as an alternative treatment for bacterial infections. She has been on the Guideline for Personalized Phage Therapy subcommittee chair since 2023, and a member of the European Society of Clinical Microbiology & Infectious Diseases (ESCMID), since Sep 2019. She is an executive board member of the Antimicrobial Alternatives Study Group and Evidence Review Group (ESGNTA) and is on the executive board of the International Society for Viruses of Microbes (ISVM).



Dr Shraddha Karve Faculty Fellow

Ashoka University

Dr Shraddha Karve works in collaboration with hospitals to analyse the retrospective antibiogram data and use genomic sequencing of priority pathogens to understand the molecular underpinnings of resistance. Currently she is an independent faculty fellow at the Trivedi School of Biology at Ashoka University. She was a postdoc at the University of Zurich between 2016 and 2020. She completed her PhD from IISER Pune in 2016.

She also led the team that won the innovation award of Vivli AMR global data challenge, 2023 and was a recipient of the Science and Engineering Research Board (SERB) start-up grant for setting up an experimental pipeline for evolutionarily informed drug design.



Dr Sidharth Chopra
Associate Professor

CSIR-Central Drug Research Institute
Lucknow

Dr Sidharth Chopra is a microbiologist with special interest in Drug discovery for ESKAPE- a group of opportunistic pathogen species and nontuberculous mycobacteria (NTM) pathogens. He completed his postdoc from Stanford University in 2008 and is a recipient of the Chevening Rolls Royce Fellow, University of Oxford in 2016.



Mr Simon Gottwalt
Project lead, Swiss Antibiotic Resistance
Strategy Human Sector

Federal Office of Public Health Switzerland Mr Gottwalt is a molecular biologist by training with a special focus on infectious diseases and drug development and a fellow of the Mercator Fellowship on international affairs. He is responsible for the implementation of the Swiss antibiotic resistance strategy in the human sector at the Federal Office of Public Health in Switzerland.

Previously, he was a program officer at the NGO Biovision in Zurich, responsible for managing development projects in Kenya and Ethiopia in tropical diseases and sustainable agriculture. He worked for the WHO in the area of access to medicines and financing of research and development.



Dr Sindura Ganapathi

Office of the Principal Scientific Adviser to the Government of India

Dr Sindura Ganapathi is currently working on building the National One Health Mission, focused on implementing integrated disease control and pandemic preparedness that brings together human, animal, and environmental sectors. He has been involved in building end-to-end digital architecture for the livestock sector in India and streamlining regulatory processes, among others.

He worked for nearly a decade in global health, specifically maternal and child health. Before this, he was a biomedical researcher focused on ion channel physiology and inositol phosphate biology.

Dr Sindura grew up in a rural farming household in Karnataka. His educational background includes a master's in veterinary pharmacology and an MBA and PhD (pharmacology) from PennState, USA.



Prof Sunish Radhakrishnan completed his PhD and did postdocs at the Case School of Medicine, Cleveland and at the Faculty of Medicine, University of Geneva. He previously served as faculty at Indian Institute of Science Education and Research Thiruvananthapuram and the University of Warwick in the United Kingdom. His work is focused towards understanding fundamental mechanisms that bacterial cells utilise to regulate cell cycle and development and therefore unravel potential drug targets.

**Prof Sunish Radhakrishnan** 

Associate Professor

Indian Institute of Science Education and Research Pune



Dr Swati Subodh
Programme Lead-AMR
Centre for Cellular and Molecular
Platforms

Swati Subodh is a scientist and healthcare professional in the field of Infectious Diseases with experience and expertise spanning across the sectors of basic research to public health. Prior to her varied roles in strategizing and managing public health programs at prominent organisations that led to the identification and implementation of some high-potential innovations for better public health outcomes, she has led research programs and projects in infectious diseases, like tuberculosis and hepatitis, involving molecular biology and genomics approaches at different national institutes. She was part of the team that worked on the first indigenous rotavirus vaccine.

Swati is also a writer and communicator with many highly-read articles/columns/features in international and national media; and invited talks, including twice at TEDx. Swati strongly believes in equity and inclusivity in healthcare which led her to work at different levels of engagement with stakeholders and partners, especially in resource-limited settings, by bridging silos to drive change for the last mile.



**Dr Taslimarif Saiyed**Director and CEO

Centre for Cellular and Molecular Platforms

Dr Taslimarif Saiyed is the CEO and Director of C-CAMP. His initial training has been in neurosciences, where he received his PhD from Max-Planck Institute for Brain Research, Germany and followed it up by postdoctoral training at University of California San Francisco. At the same time, he also underwent training in management for Biotech and Innovation from QB3 at UC Santa Cruz, UC Berkeley and UC San Francisco. He has completed a biotech management program for biotech executives at Wharton School of Management. In the Bay area, he served as a Management Consultant with QB3 New Biotech Venture Consulting and in an individual capacity consulted for many biotech firms in the US.

Dr Saiyed is an adjunct faculty at Indian Institute of Technology (IIT) Madras and also Amrita Institute - School of Biotechnology. He also heads the Discovery to Innovation Accelerator program at C-CAMP. He is actively involved in promoting innovation in life science / healthcare by supporting translation of discoveries to application, entrepreneurship and technology development.



Prof Tavpritesh Sethi
Head Centre of Excellence in Healthcare
& Associate Professor

Indraprastha Institute of Information Technology Delhi

Dr Tavpritesh Sethi is at present an associate professor at the Department of Computational Biology and head of the Centre of Excellence in Healthcare at IIIT-Delhi. Dr Tavpritesh is working towards building nationwide AMR surveillance models using machine learning. He also works on machine learning aided prediction of sepsis onset in neonatal ICUs, providing decision making tools regarding the usage of antibiotics. His paper titled "Estimating the impact of health systems factors on antimicrobial resistance in priority pathogens" was published in the Journal of Global Antimicrobial Resistance. He has also previously worked in genomic surveillance of COVID-19.



Prof Utpal Tatu
Chairman and Professor Department of Biochemistry

Indian Institute of Science

Utpal Tatu is a Professor at the Indian Institute of Science. His research focuses on global health with a focus on neglected diseases and AMR. He is an early proponent of the One Health approach and was invited to give a TED talk on One Health in 2013.

Professor Tatu is a recipient of awards such as the Ranbaxy Research Award and the Birla Science Prize. He serves on the editorial board of Molecular Cellular Proteomics, Parasitology, Cambridge Press and New Microbe New Infection, Springer. He is an elected fellow of the Indian Academy of Sciences, Ex-President of the Proteomic Society of India and a member of the research advisory board of the Malaria Elimination Research Alliance, Indian Council for Medical Research (ICMR). Professor Tatu has founded an entrepreneurial initiative out of IISc called Equine Biotech that focuses on human, animal and environmental interactions in the spread of infections. Professor Tatu was one of the first from academia to develop an RT PCR kit for COVID-19 that was ICMR approved.



Prof Varadharajan Sundaramurthy

Associate Professor

National Centre for Biological Sciences

Prof Varadharajan Sundaramurthy did his PhD at the Indian Institute of Science Bengaluru, and a postdoc in Biozentrum, Basel and at the Max Planck Institute of Molecular Cell Biology and Genetics in Dresden. He established his lab at NCBS in 2014. He has a long-standing interest in gaining a deep understanding of the battle between host and intracellular pathogens and identifying critical determinants of the outcomes of infections. He studies these interactions at molecular, subcellular, cellular, and tissue levels, particularly interested in the modulations in host trafficking processes such as the endo-lysosomal system and autophagy. Using a variety of tools, including in vitro and in vivo infections, quantitative image analysis in 2D and 3D, high-content chemical screening, and conventional cell and molecular biology approaches, his lab systematically quantifies the alterations in these pathways and dissects the underlying cellular and molecular mechanisms. His work at the interface of cell biology, microbiology, and innate immunity has implications for host-directed therapeutics against M. tuberculosis and other pathogens, exploiting host trafficking pathways for their survival, and antibiotic sensitivity, tolerance, and resistance to tuberculosis.



**Dr Vasan Sambandamurthy**Senior Vice President:
Strategy and Operations

Bugworks Research India Pvt Ltd

Dr Vasan is Senior Vice President – Strategy & Global Operations at Bugworks Research and brings over 20 years of professional experience in vaccine discovery and drug development at major global corporations like Novartis, Astra-Zeneca, Biocon. At these organisations, he has held senior leadership positions, provided strategic directions, and orchestrated major business operations to develop affordable medicines across multiple therapeutic areas, including oncology, diabetes, infectious diseases (specifically against tuberculosis and malaria) and inflammation.

Most recently, he was the Chief Executive Officer at the DBT/Wellcome Trust India Alliance, a major global funding agency (annual budget of £24 million) promoting basic, biomedical and clinical research across India. He serves as a board member of the AMR Industry Alliance – one of the largest private sector coalitions set up to provide sustainable solutions to curb AMR.

Vasan is a recipient of several awards, including the Howard Hughes Medical Institute fellowship to pursue his post-doctoral research at AECOM, New York. He has over 50 publications in peer-reviewed international journals and is a co-inventor on four patents.



Mr Yann Ferisse
Director of Business Development

Global Antibiotic Research and Development Partnership Mr Yann Ferrisse joined GARDP as business development and analysis leader in January 2018. Since October 2022, he has held the position of business development & partner engagement director.

Prior to joining GARDP, Yann was the managing director of Alcimed, an innovation consulting firm, focused on exploring and developing novel opportunities for their clients. During his time at Alcimed, he set up country offices in Europe and Asia. Alongside his principal role in business development, Yann has been instrumental in creating SECURE, an initiative to expand access to essential antibiotics, in close collaboration with WHO and with strategic input from Clinton Health Access Initiative (CHAI) and UNICEF.



Prof YK Gupta Principal Advisor India

Global Antibiotics Research and Development Partnership Professor Yogendra Kumar Gupta is a renowned pharmacologist. He served at the All India Institute for Medical Sciences (AIIMS), Delhi for over 30 years, and superannuated as dean. Prof Gupta has been instrumental in preparing the National List of Essential Medicines.

He was instrumental in the efforts that led to the global acceptability of Indian Scientific Data. He chaired the committee for the reforming of clinical trial regulations in India. The new regulations are now known as "New Drugs and Clinical Trial Rules" (NDCT 2019). He is a member of the Standing Committee on Affordable Medicines and Health Products, Government of India, and of National Pharma Pricing Authority.

Professor Gupta continues to contribute towards medical education and patient care, serving as the president of AIIMS Jammu.



**Prof L. S. Shashidara**Director

National Centre for Biological Sciences



**Dr Laasya Samhita**Assistant Professor of Biology
Ashoka University



**Dr Vaishali Gupte**Director Medical Affairs
Cipla

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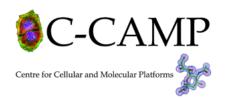








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