Application Form
Supporter Activities 2026

General Information of the Applicant(s)

Particular	Main applicant	Main applicant	Main applicant
Full name	Dr. Suboor Bakht	Dr. Maria Eckholt	Mr. Oliver Schmidt
Organization	University of Heidelberg	Technical University of Münich	Karlsruhe Institute of Technology
Main supporter/ Associated supporter	Main Supporter	Main Supporter	Associated Supporter
Designation	Director, Heidelberg Centre South Asia (HCSA)	Senior International Strategist Indo-Pacific	Leitung Internationale Kooperationen und Projekte Asien-Pazifik, Naher Osten und Osteuropa
Email address	bakht@hcsa.uni-heidelberg.de	maria.eckholt@tum.de	oliver.schmidt@kit.edu
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Website of the organization	https://www.hcsa.uni-heidelberg.de/de	https://www.international.tum.de/global/kontakt/tum-global-alumni-office-team/	https://www.intl.kit.edu/intl/3760_3781.php

Details of the Indian Partner(s) (Institute/University/Organization), if applicable

Full Name	Prof. Dr. Pintu Patra
Organization	Indian Institute of Technology Kharagpur
Website of the partner organization	https://pintupatra05.wixsite.com/website
Additional Partner	Prof. Dr. Soumya Ranjan Mohapatra
Organization	KIIT
Website of the partner organization	https://biotech.kiit.ac.in/profiles/soumya-ranjan-mohapatra/
Additional Partner	Prof. Dr. Rituparna Sinha Roy
Organization	IISER Kolkata
Website of the partner organization	https://www.iiserkol.ac.in/~rituparna/

Please specify the participation of additional DWIH New Delhi supporters / Indian partners. Please insert their details in this document in the format given above.

Event Description

Topic and working title	Computational Modelling Meets Translational Oncology: An Indo–German Workshop Bridging Quantitative Sciences and Cancer Research
Does your event correspond to the focus topic of the DWIH New Delhi for 2026, 'Science for Society'? (Yes/No)	Yes
Format of event (Workshop/ Conference/ Symposium, Fireside chat/ Lecture etc.)	Workshop that includes Pitch & Collaborate Sessions, Joint Plenary Talks and Hands-on Software/Tool Tutorials
Is the event public? (Yes/No/ By invitation only)	Yes
Description and a summary of the event (max. 150 words): (Include a draft program)	This four-day interdisciplinary workshop responds to the urgent need for integrative approaches in cancer research. While modern oncology generates complex, high-dimensional datasets, experimental and modelling communities often remain disconnected due to differences in training, methodology, and scientific mindset. Experimental cancer research emphasizes mechanistic depth and system-specific complexity, whereas quantitative approaches focus on abstraction, mathematical modelling, and predictive principles. Cancer, as a dynamic and multifaceted disease, requires both perspectives. This event will provide a dedicated platform to bridge this divide by fostering collaboration across biomarkers research, computational methods in cancer biology, tumor microenvironment studies, and AI/ML-driven detection. By creating a common space for early career and established researchers for discussion and exchange of ideas, the workshop aims to stimulate new conceptual frameworks and practical strategies that translate data-rich discoveries into innovative clinically actionable solutions, advancing precision oncology. **Tentative Program** **September 27th** Arrival of participants in India Evening welcome dinner

	September 28th Day 1: Session 1: Biomarkers in Translational Oncology 9 -10 am Registration 10-11am Opening Talk 11-1 pm Invited Speakers 1-2pm Lunch break **Session 2: Mathematical & Computational methods in cancer biology** 2.00-4.00 pm 4.00-4.45pm Coffee/Tea Break **Session 3: Hands-on Software/Tool Tutorials** 4.45-6.30 pm 7 pm onwards: Networking dinner **September 29th Day 2: Session 4: Tumor microenvironment: Immune system, metabolism, and Extracellular Vesicles** 9.00 - 11am Invited speakers and round table discussion 11.00 - 11.30 Coffee/Tea Break **Session 5: Integrative modeling and AI/ML in cancer detection** 11.30-1:30 1.30-3pm Lunch Break **Session 6: Academia-Industry Partnerships** 3-5.30 pm 5.30-6 pm Coffee/Tea Break 6pm: Campus tour and networking dinner **September 30th Day 3: Session 7: Presentations by German and related funding agencies: DAAD, DFG, AvH, IGSTC and EU** 9.00-11am Invited speakers 11.00-11.30 am Coffee/Tea Break **Session 8: Early career researchers networking session** 11.30 am- 1.30 pm Lunch: 1.30-2.00 pm **Session 9: Early career researcher Poster Session** 2.00-4.00 pm 4.00-4.30 pm Coffee/Tea Break

	4.30-6.00 pm: Round table discussions and one-on-one student discussions 6.00-7.00 pm Wrap up session
Potential speaker(s)/expert(s) (Attach a brief CV/ Link to the profile)	**German Speakers** Prof. Dr. Michael Pffafl (Technical University of Münich) https://www.professoren.tum.de/pfaffl-michael Prof. Dr. Amir Abdollahi https://www.nct-heidelberg.de/en/the-nct/organization/directorate/prof-dr-dr-amir-abdollahi.html Prof. Dr. rer. nat. Werner Nahm (Karlsruhe Institute of Technology) https://www.ibt.kit.edu/Nahm.php Dr. Aoife Ward Gahlawat (DKFZ & NCT Heidelberg) https://www.linkedin.com/in/aoife-gahlawat-phd-58740091/ Prof. Dr. Oliver Lester Saldanha (Uni Hospital Heidelberg & NCT) https://www.linkedin.com/in/dr-oliver-lester-saldanha-871155154/ https://kather.ai/ Dr. Gorjana Rackov (Mannheim University) https://www.linkedin.com/in/gorjanarackov/ Dapi Menglin Chiang (Technical University of Münich) https://www.mls.ls.tum.de/en/physio/wg-prof-pfaffl/scientific-staff/ **Indian Speakers** Dr. Mohit Kumar Jolly (Indian Institute of Science, Bengaluru) https://be.iisc.ac.in/~mkjolly/mohit/ Dr. Riddhiman Dhar (Indian Institute of Technology Kharagpur) https://www.iitkgp.ac.in/department/BT/faculty/bt-riddhiman.dhar Dr. Sandeep Singh (National Institute of Biomedical Genomics, Kalyani) https://www.nibmg.ac.in/p/people?id=19

	Dr. Pintu Patra (Indian Institute of Technology Kharagpur) https://pintupatra05.wixsite.com/website Dr. Soumya Ranjan Mohapatra (KIIT) https://biotech.kiit.ac.in/profiles/soumya-ranjan-mohapatra/ Dr. Gaurisankar Sa (Bose Institute) https://jcbose.ac.in/faculty-details/gaurisankar-sa Dr. Rituparna Sinha Roy (IISER Kolkata) https://www.iiserkol.ac.in/~rituparna/ Dr. Ushashi Roy (IISER Pune) https://www.linkedin.com/in/ushasi-roy-0b590a289/ Dr. Preeti (KIIT) https://biotech.kiit.ac.in/profiles/preeti/
Proposed date(s)	28-30 September 2026
Location (Online/ Onsite/ Hybrid) In case of 'onsite' please mention venue(s) and city/ cities.	In person
Number of expected participants	100-120
Target group(s) (Please outline your outreach plan)	The primary audience includes an interdisciplinary mix of researchers, academics, industry professionals, clinicians and young investigators (doctoral students/postdocs) with expertise in Computational and mathematical modeling in biology and medicine; Translational oncology and cancer research (basic, clinical, and experimental); Data science, AI, and bioinformatics applied to cancer data and drug discovery and medical device development. The outreach plan of the workshop would leverage digital platforms, institutional networks, and interdisciplinary collaboration to engage diverse groups of audience comprising of researchers, clinicians, industry and data scientists. Key outreach strategies include, targeted email campaigns by sending tailored announcements to relevant mailing lists at universities, research centers and professional societies focusing on computational

	biology, mathematical oncology, and cancer research. The outreach will be coordinated among partners and information disseminated through respective official channels, such as websites. The event will witness utilization of several social media platforms such as LinkedIn to share event details, highlights of the speakers and the registration links. We will deploy online Academic Platforms such as ResearchGate for posting the call for papers. Last but not the least, we will collaborate with established translational research networks, such as DKFZ to reach a broad base of experts and clinicians.
Please describe how your event supports the objectives of the DWIH New Delhi (max. 150 words) (Please refer to Paragraph 2 (2) of the by-laws of DWIH)	The workshop is aligned to DWIH objectives. It aims to bring together academic and industry experts from Germany and India to foster collaboration, exchange ideas, and bridge the gap between quantitative sciences and clinical cancer research. This workshop will serve as a platform to showcase and disseminate information about the German research landscape through deliberated scientific sessions, showcasing cutting edge research and innovation, and transfer. Presentations by German universities, info-booths and the funding agencies will add further to the goal. This workshop is designed keeping in mind long term collaboration and knowledge transfer. It will contribute to integrated, predictive, and clinically relevant research. It will help form joint research groups and help train new generation researchers capable of working across disciplinary and national boundaries. The workshop is aligned to DWIH topic, “Science for Society”, will be organised in Kolkata, India and the partners are actively involved at each step.
In case of the involvement of other cooperation partners/ other DWIH New Delhi supporters, how will responsibilities and tasks for the event be divided?	Since this is a multiple partner event involving two Main Supporters and an Associate Supporter from the German side and several partners from the Indian side, the roles and responsibilities are divided and mutually agreed-upon. The division involves clear, pre-defined roles, budget, and a plan, ensuring everyone knows their contribution to the event's success. And alignment to DWIH objectives is a mandate. The scientific content of the event, including speaker selection, topics and the session contents will be jointly developed. Second, each partner will contribute funds for specific needs, for instance, travel, catering, venue etc. as explained in the budget. The publication cost will be shared among all partners. The event promotion will be a joint effort of all partners and they will aim for leveraging reach and visibility through their channels and creating

	optimum impact. The responsibility for the logistics will be led by Heidelberg University with India office (Main DWIH Supporter) and the Indian partner institutions. The logistics include, but not limited to accommodation, venue selection and booking, local transport, catering, PR material and technical support. The Indian partners will take the responsibility of providing onground support with student assistants and manpower. Last but not the least, the post event outputs, such as reports, papers and sustainability of the initiative will be the joint responsibility of all partners.
Is this activity part of an ongoing research cooperation or an Indo-German project? If yes, please provide a brief description of it. If the cooperation has an existing funding from a European, Indian, German, or Indo-German programme or organization, please mention the details and the duration of the funding.	No

Budget of the activity

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S. No	**Particulars**: expense (travel, accommodation, venue rental including technical equipment, design & printing, and technical assistance)	Financial support required from DWIH New Delhi (EUR)	Financial support by own/ other organization (EUR)	Total the particular of expense (EUR)	Name of the source of financial support from own/ other organization
1	International airfare for German speakers @ 1000 x 3 persons	4.000		4.000	DWIH
2	International airfare for German speakers @ 1000 x 3 persons		3.000	3.000	Heidelberg University/KIT
3	Domestic airfare @ 150 x 4 persons	600		600	DWIH
4	Hotel accommodation (speakers) @ 30 x 4 nights x 12 persons	1.440		1.440	DWIH
5	Venue cost	500		500	DWIH
6	Local travel for speakers including airport transfer		1.000	1.000	Heidelberg University
7	Catering @10 x 3 days x 100 persons		3.000	3.000	Heidelberg University/ KIT/TUM
10	PR material		500	500	IITKGP
11	Publication cost		2.000	2.000	To be shared among Indian and German partners
	Total	6.540	10.000	16.540	

Signature(s)

Main Applicant

Full name & Designation of main applicant

Subodh Bakshi

_____ ____15.02.2026, Delhi_____

Signature of main applicant Date, City

Concept Note

Computational Modelling Meets Translational Oncology: An Indo–German Workshop Bridging Quantitative Sciences and Cancer Research

Background and Rationale

Cancer research is increasingly driven by high-dimensional, multi-omic datasets, complex biological systems, and the urgent need to translate laboratory findings into clinically actionable outcomes. Advances in translational oncology—such as liquid biopsies, single-cell technologies, and biomarker discovery—have created unprecedented opportunities in personalized medicine, but they also pose major analytical and conceptual challenges. Extracting clinically meaningful insights from these data requires robust computational modelling, quantitative frameworks, and interdisciplinary collaboration.

Germany and India both host strong but complementary research ecosystems in computational sciences, physics-based modelling, and translational cancer research. However, structured platforms that actively connect quantitative modellers with experimental and clinical researchers across both countries remain limited. This gap slows down translation, limits reproducibility, and restricts the training of early-career researchers in genuinely interdisciplinary approaches.

This workshop aims to address this gap by creating a focused Indo–German platform where computational scientists, physicists, data scientists, and translational oncology researchers can exchange methods, align research questions, and co-develop collaborative approaches that accelerate cancer research and clinical translation.

To achieve this aim, we will bring a group of experts together who work in separate domains, including extracellular vesicles (EV) biology, tumor microenvironment, metabolism, immunology, biomarker discovery, artificial intelligence and machine learning as well as computational and mathematical modeling. The workshop aims to foster meaningful scientific communication, cross-disciplinary understanding, and sustained networking – essential to address some of the most complex and pressing questions in translational cancer research such as tumor heterogeneity, therapy resistance, early detection, and patient stratification, which cannot be solved within a single discipline. The workshop will thus act as a catalyst for new conceptual frameworks and collaborative approaches that integrate data, models, and clinical insight to advance translational oncology.

Objectives

The workshop has the following core objectives:

1. To foster interdisciplinary dialogue between computational modellers and translational oncology researchers from India and Germany.
2. To showcase how mathematical, statistical, and agent-based models can inform cancer biology, tumor evolution, and therapy response.
3. To discuss best practices for integrating computational models with experimental, single-cell, and clinical data.
4. To support early-career researchers by exposing them to interdisciplinary research pathways and international collaboration models.
5. To initiate sustainable Indo–German research collaborations that can lead to joint projects, funding applications, and long-term exchange.

Key Themes and Topics

The workshop will focus on selected thematic areas, including but not limited to:

- Computational and physics-based models of tumor growth, heterogeneity, and evolution
- Modelling of tumor microenvironment and immune interactions
- Integration of single-cell and liquid biopsy data with computational frameworks
- Predictive modelling of therapy response and resistance
- Machine learning and AI approaches in translational oncology
- Challenges in data quality, reproducibility, and clinical translation

Expected Outcomes

- Enhanced mutual understanding between computational and translational research communities
- Identification of concrete Indo–German collaborative research ideas
- Development of interdisciplinary skillsets among early-career researchers
- Strengthened institutional links between Indian and German research organizations
- A roadmap for future joint workshops, exchange programs, and funding proposals

Sustainability and Follow-Up

To ensure sustainability beyond the workshop:

- Participants will be encouraged to form thematic working groups
- Outcomes will be documented and shared with participating institutions
- Establish a network of researchers who participated
- Opportunities for follow-up funding and exchange programs will be discussed

Long-Term Impact

By connecting computational modelling with translational oncology in an Indo–German context, this workshop will contribute to more integrated, predictive, and clinically relevant cancer research. It will also help train a new generation of researchers capable of working across disciplinary and national boundaries.