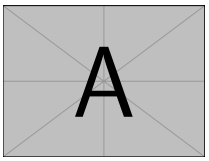
Collaborative Research Centre 9999

Mechanisms of Host–Microbiome Communication

From Molecular Interactions to Organ Function



Example University

Funding Proposal

for the third Funding Period
2027|2–2028–2029–2030–2031|1



Proposal for the third Funding Period of
Collaborative Research Centre 9999

"**Mechanisms of Host–Microbiome Communication: From Molecular Interactions to Organ Function**"

funded since

2019-07-01

for

2027|2–2028–2029–2030–2031|1

Coordinating university:

Example University

Spokesperson of the Collaborative Research Centre:

Morgan Sample, Prof. Dr. med.
0000-0000-0000-0006
Institute of Microbial Systems Medicine
Example University
University Avenue 1, 12345 Example City
(Germany)
+49 000 100-6000
morgan.sample@example.org

Management or office of the Collaborative Research Centre:

Jamie Coordinator, Dr. rer. nat.
0000-0000-0000-0007
Department of Translational Biosciences
Partner University
Research Road 2, 54321 Partner City
(Germany)
+49 000 200-7000
jamie.coordinator@example.org

Example City
<date>

Prof. Dr. med. Morgan Sample
(Spokesperson of Collaborative Research Centre)

Example City
<date>

Prof. Dr. Casey President
(Rector, chancellor, or president of Partner University)

Example City
<date>

Prof. Dr. Robin Rector
(Rector, chancellor, or president of Example University)

Contents

1 General information

1.1 Key data — 1
1.1.1 Governing bodies of the Collaborative Research Centre — 1
1.1.2 Project leaders — 1
1.1.3 Participating institutions — 2
1.1.4 Project groups and projects — 3

1.2 Research profile of the Collaborative Research Centre — 5
1.2.1 Summary of the research programme — 5
1.2.2 Detailed presentation of the research programme — 5
1.2.3 Positioning of the Collaborative Research Centre within its general research area — 5
1.2.4 National and international cooperation and networking — 5

1.3 Research profile of the applicant university — 5
1.3.1 Strategy and planning — 5
1.3.2 Staff situation — 5
1.3.3 Research infrastructure — 6

1.4 Support structures — 6
1.4.1 Researchers in early career phases — 6
1.4.2 Promotion of equity and diversity — 6
1.4.3 Knowledge transfer and science communication — 7

1.5 Risks in international cooperation — 7

1.6 Considerations on aspects of ecological sustainability in project planning and implementation — 7

2 Existing funds and requested funds

2.1 Existing funds — 9
2.1.1 Overview of existing funds for direct costs — 9
2.1.2 Overview of existing staff — 9
2.1.3 List of existing instrumentation — 9

2.2 Previous and requested funds — 9
2.2.1 Overview — 9
2.2.2 Overview of funds requested for staff — 10
2.2.3 Overview of funds requested for instrumentation — 10

2.3 Upkeep of laboratory animals — 11

3 Project details

A Project area A – Research Projects

A01 Microbial signalling across epithelial barriers — 15

A02 N Metabolic control of tissue-resident immunity — 19

A03 Microbiome-derived metabolites and immune memory — 23
A04 N Spatial niches of host–microbe interactions — 25
A05 Dietary control of microbial community dynamics — 27
A06 N Modelling microbial resilience and recovery — 29
B Project area B – Research Projects
B01 Host defence during microbiome perturbation — 31
B02 N Molecular signatures of tissue regeneration — 35
B03 Immune circuits linking intestine and liver — 37
B04 N Cross-organ consequences of inflammatory stress — 39
B05 Patient-derived models of metabolic disease — 41
B06 N Translating microbial biomarkers into interventions — 43
Q Project area Q – Central Projects
Q01 Integrated imaging and analysis services — 45
Q02 Integrated Research Training Group — 49
Q03 Central coordination and data stewardship — 53
A Project area A – Former project
A00 E Former project on microbial community dynamics — 55
4 Bylaws of the Collaborative Research Centre
5 Declarations

1 General information

1.1 Key data

1.1.1 Governing bodies of the Collaborative Research Centre

Steering Committee of the CRC 9999

Alex Example, Prof. Dr. phil.
0000-0000-0000-0002
Department of Translational Biosciences
Partner University
Research Road 2, 54321 Partner City (Germany)
+49 000 200-2000
alex.example@example.org

Samira Hartmann, Prof. Dr. rer. nat.
0000-0000-0000-0016
Centre for Computational Microbiology
Northbridge University
Science Avenue 3, 34567 Northbridge (Germany)
+49 000 300-0006
samira@example.org

Hansi Meier, Dr. rer. nat.
0000-0000-0000-0003
Department of Translational Biosciences
Partner University
Research Road 2, 54321 Partner City (Germany)
+49 000 200-3000
hansi.meier@example.org

Friedhelm Redata, Prof. Dr.-Ing.
0000-0000-0000-0005
Institute of Microbial Systems Medicine
Example University
University Avenue 1, 12345 Example City (Germany)
+49 000 100-5000
friedhelm.redata@example.org

Morgan Sample, Prof. Dr. med.
0000-0000-0000-0006
Institute of Microbial Systems Medicine
Example University
University Avenue 1, 12345 Example City (Germany)
+49 000 100-6000
morgan.sample@example.org

For the third funding period, the steering committee includes representatives of both research areas and the Integrated Research Training Group. The spokesperson and committee members are elected by the CRC general assembly in accordance with the bylaws. The composition is reviewed annually with regard to scientific breadth, career stage, and equitable participation.

1.1.2 Project leaders

Project leader		Doctorate obtained in	Home institution, location	Project(s)
Example, Alex Prof. Dr. phil.	m	1999	Department of Translational Biosciences Partner University Research Road 2, 54321 Partner City (Germany)	A01 B01 Q01
Hartmann, Samira Prof. Dr. rer. nat.	f	2010	Centre for Computational Microbiology Northbridge University Science Avenue 3, 34567 Northbridge (Germany)	A02 A03
Keller, Robin Prof. Dr. rer. nat.	d	2010	Institute of Microbial Systems Medicine Example University University Avenue 1, 12345 Example City (Germany) Centre for Clinical Translation Westhaven Research Centre Science Avenue 3, 34567 Westhaven (Germany)	B05 B06 Q03

Continue on the following page …

…continuing from previous page.

Project leader		Doctorate obtained in	Home institution, location	Project(s)
Lindberg, Noah Prof. Dr. rer. nat.	m	2010	Centre for Computational Microbiology Northbridge University Science Avenue 3, 34567 Northbridge (Germany) Department of Experimental Immunology Northbridge University Science Avenue 3, 34567 Northbridge (Germany)	A03 A04 Q01
Meier, Hansi Dr. rer. nat.	f	1999	Department of Translational Biosciences Partner University Research Road 2, 54321 Partner City (Germany)	B01 B03 Q03
Miller, Kimmi Prof. Dr. rer. nat.	f	1999	Department of Translational Biosciences Partner University Research Road 2, 54321 Partner City (Germany)	B02 B04
Navarro, Leonie Prof. Dr. rer. nat.	f	2010	Institute of Metabolic Medicine Westhaven Research Centre Science Avenue 3, 34567 Westhaven (Germany)	A05 A06 Q02
Okafor, Daniel Prof. Dr. rer. nat.	m	2010	Institute of Metabolic Medicine Westhaven Research Centre Science Avenue 3, 34567 Westhaven (Germany) Centre for Clinical Translation Westhaven Research Centre Science Avenue 3, 34567 Westhaven (Germany)	A06 B02 B06
Redata, Friedhelm Prof. Dr.-Ing.	m	1998	Institute of Microbial Systems Medicine Example University University Avenue 1, 12345 Example City (Germany)	B05 Q02
Sample, Kim Prof. Dr. rer. nat.	d	2000	Institute of Microbial Systems Medicine Example University University Avenue 1, 12345 Example City (Germany) Department of Translational Biosciences Partner University Research Road 2, 54321 Partner City (Germany)	A01 A02
Sato, Mira Prof. Dr. rer. nat.	f	2010	Centre for Clinical Translation Westhaven Research Centre Science Avenue 3, 34567 Westhaven (Germany)	B03 B04
Winters-Scholz, Alexis-Marie Prof. Dr. rer. nat.	d	2010	Department of Experimental Immunology Northbridge University Science Avenue 3, 34567 Northbridge (Germany)	A04 A05

1.1.3 Participating institutions

Northbridge University (Northbridge)
Centre for Computational Microbiology
Department of Experimental Immunology

Westhaven Research Centre (Westhaven)
Institute of Metabolic Medicine
Centre for Clinical Translation

Example University (Example City)
Institute of Microbial Systems Medicine

Partner University (Partner City)
Department of Translational Biosciences

1.1.4 Project groups and projects

Project area A – Microbiota and metabolic pathways

Project		Title	Research area	Project leader(s), institute(s), location(s)
A01		Microbial signalling across epithelial barriers	2.21-02	Kim **Sample,** Institute of Microbial Systems Medicine, Example University; Department of Translational Biosciences, Partner University Alex **Example,** Department of Translational Biosciences, Partner University
A02	N	Metabolic control of tissue-resident immunity	2.21-05	Kim **Sample,** Institute of Microbial Systems Medicine, Example University; Department of Translational Biosciences, Partner University Samira **Hartmann,** Centre for Computational Microbiology, Northbridge University
A03		Microbiome-derived metabolites and immune memory	2.21-02	Samira **Hartmann,** Centre for Computational Microbiology, Northbridge University Noah **Lindberg,** Centre for Computational Microbiology, Northbridge University; Department of Experimental Immunology, Northbridge University
A04	N	Spatial niches of host–microbe interactions	2.21-02	Noah **Lindberg,** Centre for Computational Microbiology, Northbridge University; Department of Experimental Immunology, Northbridge University Alexis-Marie **Winters-Scholz,** Department of Experimental Immunology, Northbridge University
A05		Dietary control of microbial community dynamics	2.21-02	Alexis-Marie **Winters-Scholz,** Department of Experimental Immunology, Northbridge University Leonie **Navarro,** Institute of Metabolic Medicine, Westhaven Research Centre
A06	N	Modelling microbial resilience and recovery	2.21-02	Leonie **Navarro,** Institute of Metabolic Medicine, Westhaven Research Centre Daniel **Okafor,** Institute of Metabolic Medicine, Westhaven Research Centre; Centre for Clinical Translation, Westhaven Research Centre

Project area B – Immunological circuits

Project		Title	Research area	Project leader(s), institute(s), location(s)
B01		Host defence during microbiome perturbation	2.21-03 2.21-05 2.22-15	Hansi **Meier,** Department of Translational Biosciences, Partner University Alex **Example,** Department of Translational Biosciences, Partner University
B02	N	Molecular signatures of tissue regeneration	2.22-15	Kimmi **Miller,** Department of Translational Biosciences, Partner University Daniel **Okafor,** Institute of Metabolic Medicine, Westhaven Research Centre; Centre for Clinical Translation, Westhaven Research Centre
B03		Immune circuits linking intestine and liver	2.21-02	Hansi **Meier,** Department of Translational Biosciences, Partner University Mira **Sato,** Centre for Clinical Translation, Westhaven Research Centre
B04	N	Cross-organ consequences of inflammatory stress	2.21-02	Kimmi **Miller,** Department of Translational Biosciences, Partner University Mira **Sato,** Centre for Clinical Translation, Westhaven Research Centre

Continue on the following page …

…continuing from previous page.

Project		Title	Research area	Project leader(s), institute(s), location(s)
B05		Patient-derived models of metabolic disease	2.21-02	Friedhelm **Redata,** Institute of Microbial Systems Medicine, Example University Robin **Keller,** Institute of Microbial Systems Medicine, Example University; Centre for Clinical Translation, Westhaven Research Centre
B06	N	Translating microbial biomarkers into interventions	2.21-02	Daniel **Okafor,** Institute of Metabolic Medicine, Westhaven Research Centre; Centre for Clinical Translation, Westhaven Research Centre Robin **Keller,** Institute of Microbial Systems Medicine, Example University; Centre for Clinical Translation, Westhaven Research Centre

Project area Q – Central projects

Project	Title	Research area	Project leader(s), institute(s), location(s)
Q01	Integrated imaging and analysis services	2.21-02 2.22-15	Alex **Example,** Department of Translational Biosciences, Partner University Noah **Lindberg,** Centre for Computational Microbiology, Northbridge University; Department of Experimental Immunology, Northbridge University
Q02	Integrated Research Training Group		Friedhelm **Redata,** Institute of Microbial Systems Medicine, Example University Leonie **Navarro,** Institute of Metabolic Medicine, Westhaven Research Centre
Q03	Central coordination and data stewardship		Hansi **Meier,** Department of Translational Biosciences, Partner University Robin **Keller,** Institute of Microbial Systems Medicine, Example University; Centre for Clinical Translation, Westhaven Research Centre

N: New projects started in the third funding period; E: Ending projects not continued in the third funding period; Research areas according to the German Research Foundation (2024–2028)[1]: **2.21-02**: Microbial Ecology and Applied Microbiology, **2.21-03**: Medical Microbiology and Mycology, Hygiene, Molecular Infection Biology, **2.21-05**: Immunology, and **2.22-15**: Gastroenterology.

1 https://www.dfg.de/resource/blob/331950/fachsystematik-2024-2028-en.pdf

1.2 Research profile of the Collaborative Research Centre

Spotlights: Moving Forward

- Resolve causal mechanisms of communication between microbial communities, epithelial barriers, and tissue-resident immune cells.
- Combine spatial profiling, experimental perturbation, and predictive modelling across the participating projects.
- Translate shared methods into reproducible services, interoperable data, and structured training for researchers in early career phases.

1.2.1 Summary of the research programme

The CRC investigates how microbial and host-derived signals cross epithelial barriers and influence organ function. During the previous funding periods, the consortium established shared cohorts, experimental models, imaging workflows, and computational methods. The new programme links these resources in hypothesis-driven projects that test causality across molecular, cellular, and tissue scales.

1.2.2 Detailed presentation of the research programme

Project area A examines microbial metabolites and barrier signalling, whereas project area B focuses on immune circuits and tissue responses. The central projects provide imaging, analysis, training, coordination, and research-data services. Common samples, harmonised metadata, and reciprocal collaborations connect the individual work programmes and enable validation across models and participating institutions.

1.2.3 Positioning of the Collaborative Research Centre within its general research area

The programme combines mechanistic microbiome research with systems immunology and organ physiology. Its distinguishing feature is the coordinated validation of candidate signals from discovery cohorts through controlled experimental systems to tissue-level readouts, supported by shared technology and transparent data-management standards.

1.2.4 National and international cooperation and networking

The CRC maintains method-oriented collaborations with national infrastructure networks and international partner laboratories. Cooperation agreements define sample and data transfer, authorship, quality assurance, and access to specialised technologies. Visiting-researcher and exchange formats are coordinated through the Integrated Research Training Group.

1.3 Research profile of the applicant university

1.3.1 Strategy and planning

Example University has identified host–microbiome research as a strategic priority and supports the CRC through permanent scientific positions, shared technical platforms, research-data infrastructure, and central administration. Annual reviews align institutional investments with the scientific milestones of the consortium.

1.3.2 Staff situation

The participating units contribute principal investigators, research staff, technical personnel, data stewards, and administrative support. Recruitment planning prioritises timely appointments, transparent selection procedures, career development, and continuity of essential technical expertise.

1.3.3 Research infrastructure

The CRC has access to advanced microscopy, flow cytometry, sequencing, gnotobiotic facilities, secure data storage, and high-performance computing. Central projects coordinate access, training, maintenance, and quality control so that methods and datasets remain comparable across all projects.

1.4 Support structures

1.4.1 Researchers in early career phases

Researchers in early career phases receive structured scientific and career mentoring, transferable-skills training, annual progress reviews, and access to methods courses and exchange opportunities organised by Q02 (**Redata / Navarro**).

Project	Surname, first name	Type of funding	Topic	Duration
A01	Sample, Kimmi	DFG	*Epithelial sensing of microbial metabolites*	2025-04–2029-06
B01	Wunderlich, Kimmi	DFG	*Immune signatures during microbiome perturbation*	2025-04–2029-06

1.4.2 Promotion of equity and diversity

Recruitment, supervision, and committee appointments follow transparent criteria and are monitored by career stage and gender. Flexible working arrangements, mentoring, accessibility measures, and targeted career support are available through the central coordination project.

A. Objectives for the participation of female researchers

	Second funding period			Third funding period
	Objective [%]	Status Quo[a]		Objective [%]
		Number	[%]	f
Doctoral researchers	40	20	14	40
Postdoctoral researchers	22	34	44	34

[a] Reference date: proposal for third funding period

B. Project leaders

Position (female)	First funding period		Second funding period		Status Quo[a] Third funding period		
	Number	[%]	Number	[%]	Original objective [%]	Number	[%]
Postdoctoral researchers	0	0	1	100	34	1	100
Research group leaders, junior research group leaders, junior professors	0	0	0	0	34	0	0
Professors W2/C3	0	0	1	100	34	4	44
Professors W3/C4	0	0	0	0	34	0	0
Total	**0**	**0**	**2**	**50**		**5**	**42**

[a] Reference date: proposal for third funding period

1.4.3 Knowledge transfer and science communication

The CRC communicates results through open research resources, public lectures, school and patient-group activities, and dialogue formats with clinical and societal stakeholders. Transfer opportunities are assessed early, with clear procedures for intellectual property, responsible communication, and reusable research outputs.

1.5 Risks in international cooperation

International partnerships are reviewed for legal, ethical, export-control, data-protection, and research-security risks. Written agreements specify permitted data and material transfers, access rights, publication principles, and responsibilities. The participating universities reassess collaborations when partners, technologies, or regulatory conditions change.

1.6 Considerations on aspects of ecological sustainability in project planning and implementation

The CRC considers ecological sustainability when planning experiments, procurement, travel, computing, sample storage, and shared infrastructure. Projects consolidate measurement campaigns, share equipment and reference materials, select proportionate data-retention and computing strategies, and prefer lower-emission travel or remote participation where this is compatible with the scientific objective. The steering committee reviews these measures alongside scientific feasibility, research quality, legal obligations, animal welfare, and the responsible use of resources.

2 Existing funds and requested funds

2.1 Existing funds

2.1.1 Overview of existing funds for direct costs

Financial year/ funding period	Core support provided by applicant university	Core support provided by other participating institutions	Other funds	Total
2022|2	1,000	2,000	3,000	6,000
2023	1,000	2,000	3,000	6,000
2024	1,000	2,000	3,000	6,000
2025	1,000	2,000	3,000	6,000
2026|1	1,000	2,000	3,000	6,000
Ending Funding period	5,000	10,000	15,000	30,000
2027|2	13,600	3,200	0	16,800
2028	56,300	2,500	0	58,800
2029	23,600	23,100	0	46,700
2030	3,100	7,600	0	10,700
2031|1	40,800	5,400	0	46,200
New Funding period	137,400	41,800	0	179,200

Note: Figures in EUR.

2.1.2 Overview of existing staff

Category	Number of persons	
	at the applicant university EU	at other participating institutions PU
Professors	1	2
Junior research group leaders	0	0
Postdoctoral researchers	0	0
Doctoral researchers	0	0
Other research staff	0	0
Non-research staff	1	1
Student and graduate assistants	0	0

Abbreviations: EU: Example University; PU: Partner University.

2.1.3 List of existing instrumentation

Project	Description of instrumentation	Year of purchase	Cost of purchase[a]	Source of funding
A01	1 × Confocal laser-scanning microscope (Example Instruments GmbH)	2025	250	DFG
A01 / B01	2 × Anaerobic workstation (Laboratory Systems AG)	2024	80	Institutional funds

[a] Figures in thousands

2.2 Previous and requested funds

2.2.1 Overview

Financial year/ funding period	Funding for				Total
	Staff	Direct costs	Instrumentation	Fellowships	Globalfunds
2022|2	1,000	2,000	3,000	4,000	5,000	15,000
2023	1,000	2,000	3,000	4,000	5,000	15,000
2024	1,000	2,000	3,000	4,000	5,000	15,000

Continue on the following page …

…continuing from previous page.

Financial year/ funding period	Funding for					Total
	Staff	Direct costs	Instrumentation	Fellowships	Globalfunds	
2025	1,000	2,000	3,000	4,000	5,000	15,000
2026|1	1,000	2,000	3,000	4,000	5,000	15,000
Ending Funding period	5,000	10,000	15,000	20,000	25,000	75,000
2027|2	734,158	19,112	6,000	1,000	6,000	766,270
2028	1,468,325	28,067	2,000	1,000	7,000	1,506,392
2029	1,468,325	39,843	3,000	1,000	8,000	1,520,168
2030	1,468,325	34,375	4,000	1,000	9,000	1,516,700
2031|1	734,158	25,983	5,000	1,000	10,000	776,141
New Funding period	5,873,291	147,380	20,000	5,000	40,000	6,085,671

Note: Figures in EUR.

2.2.2 Overview of funds requested for staff

Project	2027|2					2028					2029					2030					2031|1				
	Postdoctoral researchers	Doctoral researchers	Other research staff	Non-research staff	Student and graduate assistants	Postdoctoral researchers	Doctoral researchers	Other research staff	Non-research staff	Student and graduate assistants	Postdoctoral researchers	Doctoral researchers	Other research staff	Non-research staff	Student and graduate assistants	Postdoctoral researchers	Doctoral researchers	Other research staff	Non-research staff	Student and graduate assistants	Postdoctoral researchers	Doctoral researchers	Other research staff	Non-research staff	Student and graduate assistants
A01	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×
A02	1	1	×	×	×	1	1	×	×	×	1	1	×	×	×	1	1	×	×	×	1	1	×	×	×
A03	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×
A04	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×
A05	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×
A06	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×
B01	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×
B02	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×
B03	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×
B04	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×
B05	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×
B06	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×
Q01	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×
Q02	×	1	×	1	×	×	1	×	1	×	×	1	×	1	×	×	1	×	1	×	×	1	×	1	×
Q03	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×	×	×	×	1	×
Total	**2**	**12**	×	**3**	×	**2**	**12**	×	**3**	×	**2**	**12**	×	**3**	×	**2**	**12**	×	**3**	×	**2**	**12**	×	**3**	×

2.2.3 Overview of funds requested for instrumentation

Project	Description of instrumentation	Funds requested for				
		2027|2	2028	2029	2030	2031|1
A01	Live-cell imaging system	1,000	2,000	3,000	4,000	5,000
A02	Specialised instrument	5,000	0	0	0	0
Total		6,000	2,000	3,000	4,000	5,000

Note: Figures in EUR.

2.3 Upkeep of laboratory animals

Project	Species	Quantity	Average number of weeks kept	Housing costs per animal per week[a]	Purchase costs per animal[a]	Requested funds[a]	Existing funds[a]
A01	Mouse	1,212	43	0.75	23	100	232
A01 / A02	Rat	2	3	1.4	23.54	1,230	232
B01	Mouse (gnotobiotic)	3	43	3.9	23	201	132
	Mice	1,215					
	Rats	2					
Total	**All animals**	1,217				1,531	596

[a] Figures in EUR.

3 Project details

3.1 General information about Project A01

3.1.1 Project title: Microbial signalling across epithelial barriers

3.1.2 Research area: 2.21-02: Microbial Ecology and Applied Microbiology

3.1.3 Project leaders

Kim Sample, Prof. Dr. rer. nat.

0000-0000-0000-0001
Institute of Microbial Systems Medicine
Example University
University Avenue 1, 12345 Example City
(Germany)

Department of Translational Biosciences
Partner University
Research Road 2, 54321 Partner City
(Germany)
+49 000 100-1000
kim.sample@example.org

Alex Example, Prof. Dr. phil.

0000-0000-0000-0002
Department of Translational Biosciences
Partner University
Research Road 2, 54321 Partner City
(Germany)
+49 000 200-2000
alex.example@example.org

A01

- Is the employment of the project leaders at the institutions indicated contractually secured for the duration of the proposed funding period? **no** (Sample), **no** (Example)
- Do any of the above mentioned persons hold fixed-term positions? **yes** (Sample), **no** (Example)
  - End date of fixed-term contract: **2028-12-31**
  - Further employment is planned until: **2029-01-03**
- Will one or more of the above-mentioned persons retire during the proposed funding period? **yes** (Sample), **no** (Example)
  - Anticipated retirement date: **2054-03-10**
- Funding for the position of the project leaders at the institutions indicated is covered by core support (state funds or similar): **no** (Sample), **yes** (Example)
  - Type and source of funding: **DFG**

3.1.4 Legal issues

This project includes

1. research requiring compliance with discipline-specific research ethics guidelines.	✔ yes
A statement from the responsible ethics committee is required and will be obtained before funding starts.	✘ no
2. clinical trials	✘ no
3. experiments involving vertebrates.	✘ no
4. experiments involving recombinant DNA.	✘ no
5. research involving human embryonic stem cells.	✘ no
6. research concerning the Convention on Biological Diversity.	✘ no
7. investigations involving dual use research of concern.	✘ no

3.2 Summary

Summarise the continuing project's central question, progress, planned work, methods, and contribution to the Collaborative Research Centre.

3.3 Project progress to date

3.3.1 Report and current state of research

Report the work and results from the previous funding periods, relate them to the current state of research, and explain how they motivate the new plan.

3.3.2 Project- and subject-related list of publications

Wilkinson, M. D. et al. (2016). "The FAIR Guiding Principles for scientific data management and stewardship". In: *Scientific Data* 3.1, p. 160018. DOI: 10.1038/sdata.2016.18. (Visited on 05/31/2021).

3.4 Project plan

Aim 1: Define the underlying mechanism.
Aim 2: Validate the mechanism experimentally.
Aim 3: Integrate the findings across the CRC.

Refer to one aim as **Aim 1**, or to several as **Aims 1 to 3**.

WP 1: Mechanistic analysis

Describe the work, methods, milestones, risks, and expected results of **WP 1**.

WP 1a: Establish and validate the experimental system.

WP 1b: Perform the mechanistic experiments and define decision points.

WP 2: Experimental validation

Describe the validation strategy, expected results, and contingency plan of **WP 2**.

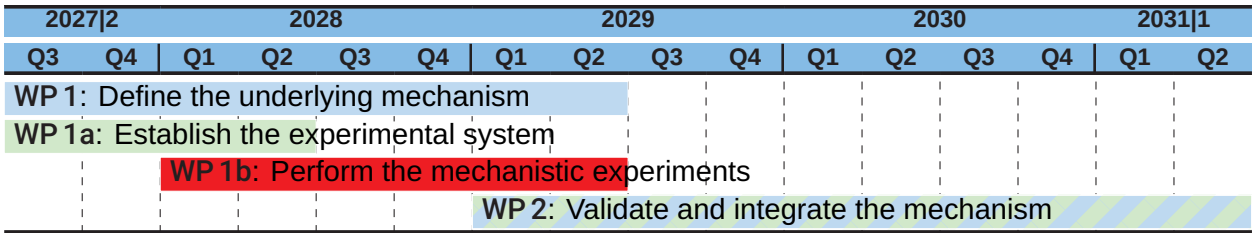


Fig. 1: Gantt chart of A01.

3.5 Relevance of sex, gender and/or diversity in the research project

Explain whether and how sex, gender, and diversity affect the research questions, design, analysis, and interpretation.

3.6 Role within the Collaborative Research Centre

Describe the project's contribution to the CRC and its principal collaborations.

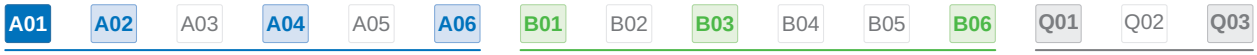


Fig. 2: Collaborations of A01.

3.7 Differentiation from other funded projects

Explain how this project differs from, and complements, other funded work of the project leaders.

3.8 Project funding

3.8.1 Previous funding

Funding of this project within the Collaborative Research Centre started in July 2019. Preparatory work was funded by Example University's seed-fund programme from January 2018 to June 2019 (reference number EU-EXAMPLE-01).

3.8.2 Requested funding

Funding for	2027|2		2028		2029		2030		2031|1	
Staff	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum
Professor, 100 %	2	126,600	2	253,200	2	253,200	2	253,200	2	126,600
Doctoral researcher, 65 %	1	26,500	1	53,000	1	53,000	1	53,000	1	26,500
Total		153,100		306,200		306,200		306,200		153,100
Direct Costs		Sum		Sum		Sum		Sum		Sum
Laboratory consumables		2,112		67		9,843		2,375		983
Sequencing and data analysis		1,000		2,000		3,000		4,000		5,000
Total		3,112		2,067		12,843		6,375		5,983
Instrumentation		Sum		Sum		Sum		Sum		Sum
Live-cell imaging system		1,000		2,000		3,000		4,000		5,000
Total		1,000		2,000		3,000		4,000		5,000
Total		157,212		310,267		322,043		316,575		164,083

Note: Figures in EUR.

A01

Requested funding for staff for the new funding period

	No.	Name, academic degree, position	Field of research	Departm. of (non-)univers. institution	Project commitm. (h/wk)	Category	Funding source
Existing staff							
Research staff	1.	**Sample**, Kim, Prof. Dr. rer. nat. (Professor and Director)	Microbiology and systems medicine	IMSM, DTB	8		State funds
Non-research staff	2.	Example, Alex, M.Sc. (Technical assistant)	Laboratory management	IMSM	20		Core support
Requested staff							
Research staff	3.	TBA (Postdoctoral researcher)	Host–microbiome interactions	DTB		Postdoctoral researcher	
Non-research staff	4.	Demo, Taylor, B.Sc. (Research assistant)	Biobanking and data curation	DTB		Research assistant	

Abbreviations: IMSM: Institute of Microbial Systems Medicine (EU); DTB: Department of Translational Biosciences (PU); EU: Example University; PU: Partner University.

Job descriptions of staff for the proposed funding period (supported through existing funds):

1. **Kim Sample** Leads the experimental programme and supervises the research staff assigned to the project.
2. **Alex Example** Maintains shared laboratory workflows and coordinates sample logistics.

Job descriptions of staff for the proposed funding period (requested funds):

3. **TBA** Performs the planned mechanistic experiments and integrates molecular and clinical datasets.
4. **Taylor Demo** Supports biobanking, quality control, and structured curation of the project datasets.

Requested funding for direct costs for the new funding period

	2027|2	2028	2029	2030	2031|1
PU: existing funds from Partner University core support	1,200	500	21,100	5,600	3,400

Continue on the following page …

…continuing from previous page.

	2027|2	2028	2029	2030	2031|1
EU: existing funds from Example University core support	11,100	53,800	21,100	600	38,300
Sum of existing funds	12,300	54,300	42,200	6,200	41,700
Sum of requested funds	3,112	2,067	12,843	6,375	5,983

Note: Figures in EUR.

Text		
Laboratory consumables and antibodies	EUR	15,000
Single-cell sequencing and spatial profiling	EUR	12,000
Research data storage and analysis	EUR	3,000

Requested funding for instrumentation for the new funding period

Text		
Automated live-cell imaging system	EUR	95,000
Environmental control module	EUR	18,000
Analysis workstation and software	EUR	7,000

A01

3.1 General information about Project A02 N

3.1.1 Project title: Metabolic control of tissue-resident immunity

3.1.2 Research area: 2.21-05: Immunology

3.1.3 Project leaders

Kim Sample, Prof. Dr. rer. nat.

0000-0000-0000-0001
Institute of Microbial Systems Medicine
Example University
University Avenue 1, 12345 Example City
(Germany)

Department of Translational Biosciences
Partner University
Research Road 2, 54321 Partner City
(Germany)
+49 000 100-1000
kim.sample@example.org

Samira Hartmann, Prof. Dr. rer. nat.

0000-0000-0000-0016
Centre for Computational Microbiology
Northbridge University
Science Avenue 3, 34567 Northbridge
(Germany)
+49 000 300-0006
samira@example.org

- Is the employment of the project leaders at the institutions indicated contractually secured for the duration of the proposed funding period? **no** (Sample), **no** (Hartmann)
- Do any of the above mentioned persons hold fixed-term positions? **yes** (Sample), **no** (Hartmann)
  - End date of fixed-term contract: **2028-12-31**
  - Further employment is planned until: **2029-01-03**
- Will one or more of the above-mentioned persons retire during the proposed funding period? **yes** (Sample), **no** (Hartmann)
  - Anticipated retirement date: **2054-03-10**
- Funding for the position of the project leaders at the institutions indicated is covered by core support (state funds or similar): **no** (Sample), **no** (Hartmann)
  - Type and source of funding: **DFG** (Sample), **NULL** (Hartmann)

3.1.4 Legal issues

This project includes

1. research requiring compliance with discipline-specific research ethics guidelines.	✗ no
2. clinical trials	✓ yes
A copy of the studies' registration is included with the proposal.	✗ no
3. experiments involving vertebrates.	✓ yes
4. experiments involving recombinant DNA.	✓ yes
5. research involving human embryonic stem cells.	✗ no
6. research concerning the Convention on Biological Diversity.	✓ yes
7. investigations involving dual use research of concern.	✗ no

3.2 Summary

Summarise the new project's central hypothesis, methods, expected results, and contribution to the Collaborative Research Centre.

3.3 Research rationale

3.3.1 Current state of research and preliminary work

Describe the relevant state of research, preliminary work, open questions, and the scientific rationale for the proposed project.

3.3.2 Project- and subject-related list of publications

Wilkinson, M. D. et al. (2016). "The FAIR Guiding Principles for scientific data management and stewardship". In: *Scientific Data* 3.1, p. 160018. DOI: 10.1038/sdata.2016.18. (Visited on 05/31/2021).

3.4 Project plan

Aim 1: Establish the experimental and analytical framework.

Aim 2: Test the central hypothesis and validate the findings.

WP 1: Framework and pilot experiments

Describe the methods, milestones, expected results, and risks of **WP 1** and its contribution to **Aim 1**.

WP 2: Hypothesis testing and validation

Describe the validation strategy and contingency plan for **WP 2** and **Aim 2**.

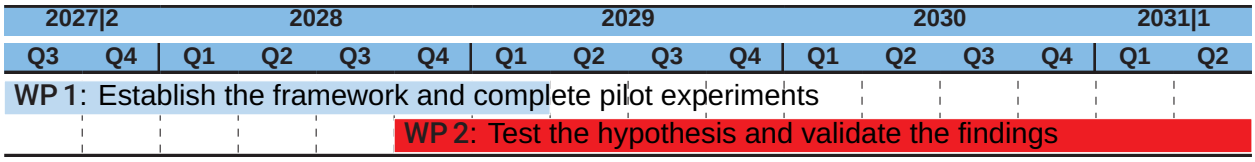


Fig. 1: Gantt chart of A02.

3.5 Relevance of sex, gender and/or diversity in the research project

Explain whether and how sex, gender, and diversity affect the research questions, design, analysis, and interpretation.

3.6 Role within the Collaborative Research Centre

Describe the project's contribution to the CRC and its principal collaborations.



Fig. 2: Collaborations of A02.

3.7 Differentiation from other funded projects of the project leader(s)

Explain how this new project differs from, and complements, other funded work of the project leaders.

3.8 Project funding

3.8.1 Previous funding

State that this is a new CRC project and list related previous funding of the project leaders where applicable.

3.8.2 Requested funding

Funding for	2027|2		2028		2029		2030		2031|1	
Staff	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum
Postdoctoral researcher, 100 %	1	45,300	1	90,600	1	90,600	1	90,600	1	45,300
Doctoral researcher, 65 %	1	26,500	1	53,000	1	53,000	1	53,000	1	26,500
Total		71,800		143,600		143,600		143,600		71,800
Direct Costs		Sum		Sum		Sum		Sum		Sum
Consumables		2,000		2,000		2,000		2,000		2,000
Total		2,000		2,000		2,000		2,000		2,000

Continue on the following page …

…continuing from previous page.

Funding for	2027|2	2028	2029	2030	2031|1
Instrumentation	Sum	Sum	Sum	Sum	Sum
Specialised instrument	5,000	0	0	0	0
Total	5,000	0	0	0	0
Total	78,800	145,600	145,600	145,600	73,800

Note: Figures in EUR.

Requested funding for staff

	No.	Name, academic degree, position	Field of research	Departm. of (non-)univers. institution	Project commitm. (h/wk)	Category	Funding source
Requested staff							
Research staff	1.	TBA (Postdoctoral researcher)	Experimental systems medicine	IMSM		Postdoctoral researcher	

Abbreviations: IMSM: Institute of Microbial Systems Medicine (EU); EU: Example University.

Job descriptions of staff for the proposed funding period (requested funds):

1. **TBA** Establishes the new experimental platform, performs the mechanistic studies, and analyses the resulting datasets.

Provide the scientific and organisational justification for every requested staff position.

Requested funding of direct costs

	2027|2	2028	2029	2030	2031|1
EU: existing funds from State funds	500	500	500	500	500
Sum of existing funds	500	500	500	500	500
Sum of requested funds	2,000	2,000	2,000	2,000	2,000

Note: Figures in EUR.

Text

Consumables for pilot experiments	EUR	10,000
External data analysis	EUR	5,000

Requested funding for instrumentation

Text

Specialised instrument including installation	EUR	5,000

3.1 General information about Project A03

3.1.1 Project title: Microbiome-derived metabolites and immune memory

3.1.2 Research area: 2.21-02: Microbial Ecology and Applied Microbiology

3.1.3 Project leaders

Samira Hartmann, Prof. Dr. rer. nat.

0000-0000-0000-0016
Centre for Computational Microbiology
Northbridge University
Science Avenue 3, 34567 Northbridge
(Germany)
+49 000 300-0006
samira@example.org

Noah Lindberg, Prof. Dr. rer. nat.

Centre for Computational Microbiology
Northbridge University
Science Avenue 3, 34567 Northbridge
(Germany)

Department of Experimental Immunology
Northbridge University
Science Avenue 3, 34567 Northbridge
(Germany)
+49 000 300-0007 noah@example.org

- Is the employment of the project leaders at the institutions indicated contractually secured for the duration of the proposed funding period? **no** (Hartmann), **no** (Lindberg)
- Do any of the above mentioned persons hold fixed-term positions? **no** (Hartmann), **no** (Lindberg)
- Will one or more of the above-mentioned persons retire during the proposed funding period? **no** (Hartmann), **no** (Lindberg)
- Funding for the position of the project leaders at the institutions indicated is covered by core support (state funds or similar): **no** (Hartmann), **no** (Lindberg)
  - Type and source of funding: **NULL** (Hartmann), **NULL** (Lindberg)

3.1.4 Legal issues

This project includes	
1. research requiring compliance with discipline-specific research ethics guidelines.	✗ no
2. clinical trials	✗ no
3. experiments involving vertebrates.	✗ no
4. experiments involving recombinant DNA.	✗ no
5. research involving human embryonic stem cells.	✗ no
6. research concerning the Convention on Biological Diversity.	✗ no
7. investigations involving dual use research of concern.	✗ no

3.2 Summary

This project investigates Microbiome-derived metabolites and immune memory. Its project leaders combine experimental and analytical approaches within the shared research programme of CRC 9999.

3.3 Project progress to date

The preceding funding period established the experimental models and shared datasets. The next phase tests causal mechanisms and validates their relevance across the participating projects.

3.3.1 Project- and subject-related list of publications

Wilkinson, M. D. et al. (2016). “The FAIR Guiding Principles for scientific data management and stewardship”. In: *Scientific Data* 3.1, p. 160018. DOI: 10.1038/sdata.2016.18. (Visited on 05/31/2021).

3.4 Project plan

Aim 1: Establish reproducible experimental and analytical workflows.

Aim 2: Validate the findings in complementary models and datasets.

WP 1: Experimental framework Define the controls, sampling strategy, and analysis workflow for **Aim 1**.

WP 2: Validation and integration Test robustness and share the validated results for **Aim 2**.

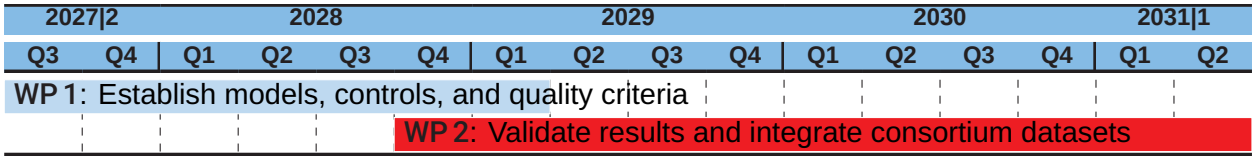


Fig. 1: Gantt chart of A03.

3.5 Relevance of sex, gender and/or diversity in the research project

Include relevant biological variables in sampling and analysis; document the rationale for each model and the limits of generalisation.

3.6 Role within the Collaborative Research Centre

Share methods, data, and validation resources with the linked projects.

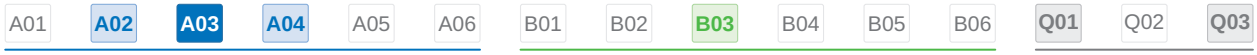


Fig. 2: Collaborations of A03.

3.7 Differentiation from other funded projects

The proposed work addresses the CRC-specific hypothesis and does not duplicate personnel or experiments supported by other grants.

3.8 Project funding

Funding for	2027|2		2028		2029		2030		2031|1	
Staff	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum
Doctoral researcher, 65 %	1	27,202	1	54,405	1	54,405	1	54,405	1	27,202
Total		27,202		54,405		54,405		54,405		27,202
Direct Costs		Sum		Sum		Sum		Sum		Sum
consumables		1,000		2,000		2,000		2,000		1,000
Total		1,000		2,000		2,000		2,000		1,000
Total		28,202		56,405		56,405		56,405		28,202

Note: Figures in EUR.

The doctoral researcher performs the experiments and integrates the data. Consumables cover sample preparation, assays, and independent validation.

3.1 General information about Project A04 N

3.1.1 Project title: Spatial niches of host–microbe interactions

3.1.2 Research area: 2.21-02: Microbial Ecology and Applied Microbiology

3.1.3 Project leaders

Noah Lindberg, Prof. Dr. rer. nat.

Centre for Computational Microbiology
Northbridge University
Science Avenue 3, 34567 Northbridge
(Germany)

Department of Experimental Immunology
Northbridge University
Science Avenue 3, 34567 Northbridge
(Germany)
+49 000 300-0007 noah@example.org

Alexis-Marie Winters-Scholz, Prof. Dr. rer. nat.

Department of Experimental Immunology
Northbridge University
Science Avenue 3, 34567 Northbridge
(Germany)
+49 000 300-0008
alexis-marie@example.org

- Is the employment of the project leaders at the institutions indicated contractually secured for the duration of the proposed funding period? **no** (Lindberg), **no** (Winters-Scholz)
- Do any of the above mentioned persons hold fixed-term positions? **no** (Lindberg), **no** (Winters-Scholz)
- Will one or more of the above-mentioned persons retire during the proposed funding period? **no** (Lindberg), **no** (Winters-Scholz)
- Funding for the position of the project leaders at the institutions indicated is covered by core support (state funds or similar): **no** (Lindberg), **no** (Winters-Scholz)
  - Type and source of funding: **NULL** (Lindberg), **NULL** (Winters-Scholz)

3.1.4 Legal issues

This project includes	
1. research requiring compliance with discipline-specific research ethics guidelines.	✗ no
2. clinical trials	✗ no
3. experiments involving vertebrates.	✗ no
4. experiments involving recombinant DNA.	✗ no
5. research involving human embryonic stem cells.	✗ no
6. research concerning the Convention on Biological Diversity.	✗ no
7. investigations involving dual use research of concern.	✗ no

3.2 Summary

This project investigates Spatial niches of host–microbe interactions. Its project leaders combine experimental and analytical approaches within the shared research programme of CRC 9999.

3.3 Research rationale

Preliminary observations motivate a new testable hypothesis. The project establishes its experimental framework and independent validation strategy during the requested funding period.

3.3.1 Project- and subject-related list of publications

Wilkinson, M. D. et al. (2016). “The FAIR Guiding Principles for scientific data management and stewardship”. In: *Scientific Data* 3.1, p. 160018. DOI: 10.1038/sdata.2016.18. (Visited on 05/31/2021).

3.4 Project plan

Aim 1: Establish reproducible experimental and analytical workflows.

Aim 2: Validate the findings in complementary models and datasets.

WP 1: Experimental framework Define the controls, sampling strategy, and analysis workflow for **Aim 1**.

WP 2: Validation and integration Test robustness and share the validated results for **Aim 2**.

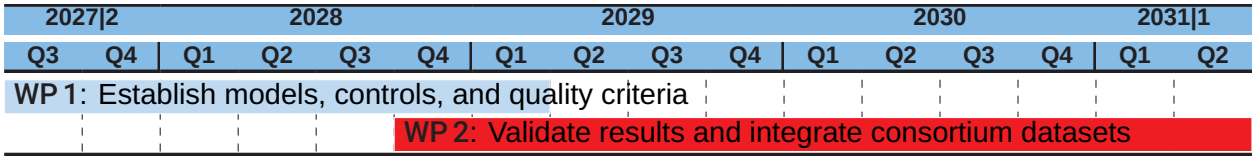


Fig. 1: Gantt chart of A04.

3.5 Relevance of sex, gender and/or diversity in the research project

Include relevant biological variables in sampling and analysis; document the rationale for each model and the limits of generalisation.

3.6 Role within the Collaborative Research Centre

Share methods, data, and validation resources with the linked projects.

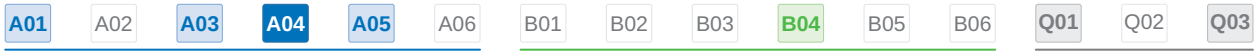


Fig. 2: Collaborations of A04.

3.7 Differentiation from other funded projects

The proposed work addresses the CRC-specific hypothesis and does not duplicate personnel or experiments supported by other grants.

3.8 Project funding

Funding for	2027|2		2028		2029		2030		2031|1	
Staff	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum
Doctoral researcher, 65 %	1	27,202	1	54,405	1	54,405	1	54,405	1	27,202
Total		27,202		54,405		54,405		54,405		27,202
Direct Costs		Sum		Sum		Sum		Sum		Sum
consumables		1,000		2,000		2,000		2,000		1,000
Total		1,000		2,000		2,000		2,000		1,000
Total		28,202		56,405		56,405		56,405		28,202

Note: Figures in EUR.

The doctoral researcher performs the experiments and integrates the data. Consumables cover sample preparation, assays, and independent validation.

3.1 General information about Project A05

3.1.1 Project title: Dietary control of microbial community dynamics

3.1.2 Research area: 2.21-02: Microbial Ecology and Applied Microbiology

3.1.3 Project leaders

Alexis-Marie Winters-Scholz, Prof. Dr. rer. nat.

Department of Experimental Immunology
Northbridge University
Science Avenue 3, 34567 Northbridge
(Germany)
+49 000 300-0008
alexis-marie@example.org

Leonie Navarro, Prof. Dr. rer. nat.

Institute of Metabolic Medicine
Westhaven Research Centre
Science Avenue 3, 34567 Westhaven
(Germany)
+49 000 300-0009
leonie@example.org

- Is the employment of the project leaders at the institutions indicated contractually secured for the duration of the proposed funding period? **no** (Winters-Scholz), **no** (Navarro)
- Do any of the above mentioned persons hold fixed-term positions? **no** (Winters-Scholz), **no** (Navarro)
- Will one or more of the above-mentioned persons retire during the proposed funding period? **no** (Winters-Scholz), **no** (Navarro)
- Funding for the position of the project leaders at the institutions indicated is covered by core support (state funds or similar): **no** (Winters-Scholz), **no** (Navarro)
  - Type and source of funding: **NULL** (Winters-Scholz), **NULL** (Navarro)

3.1.4 Legal issues

This project includes	
1. research requiring compliance with discipline-specific research ethics guidelines.	✗ no
2. clinical trials	✗ no
3. experiments involving vertebrates.	✗ no
4. experiments involving recombinant DNA.	✗ no
5. research involving human embryonic stem cells.	✗ no
6. research concerning the Convention on Biological Diversity.	✗ no
7. investigations involving dual use research of concern.	✗ no

3.2 Summary

This project investigates Dietary control of microbial community dynamics. Its project leaders combine experimental and analytical approaches within the shared research programme of CRC 9999.

3.3 Project progress to date

The preceding funding period established the experimental models and shared datasets. The next phase tests causal mechanisms and validates their relevance across the participating projects.

3.3.1 Project- and subject-related list of publications

Wilkinson, M. D. et al. (2016). “The FAIR Guiding Principles for scientific data management and stewardship”. In: *Scientific Data* 3.1, p. 160018. DOI: 10.1038/sdata.2016.18. (Visited on 05/31/2021).

3.4 Project plan

Aim 1: Establish reproducible experimental and analytical workflows.

Aim 2: Validate the findings in complementary models and datasets.

WP 1: Experimental framework Define the controls, sampling strategy, and analysis workflow for **Aim 1**.

WP 2: Validation and integration Test robustness and share the validated results for **Aim 2**.

3.5 Relevance of sex, gender and/or diversity in the research project

Include relevant biological variables in sampling and analysis; document the rationale for each model and the limits of generalisation.

3.6 Role within the Collaborative Research Centre

Share methods, data, and validation resources with the linked projects.

3.7 Differentiation from other funded projects

The proposed work addresses the CRC-specific hypothesis and does not duplicate personnel or experiments supported by other grants.

3.8 Project funding

Funding for	2027|2		2028		2029		2030		2031|1	
Staff	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum
Doctoral researcher, 65 %	1	27,202	1	54,405	1	54,405	1	54,405	1	27,202
Total		27,202		54,405		54,405		54,405		27,202
Direct Costs		Sum		Sum		Sum		Sum		Sum
consumables		1,000		2,000		2,000		2,000		1,000
Total		1,000		2,000		2,000		2,000		1,000
Total		28,202		56,405		56,405		56,405		28,202

Note: Figures in EUR.

The doctoral researcher performs the experiments and integrates the data. Consumables cover sample preparation, assays, and independent validation.

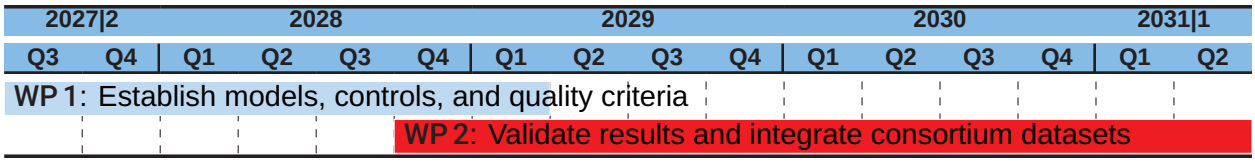


Fig. 1: Gantt chart of A05.

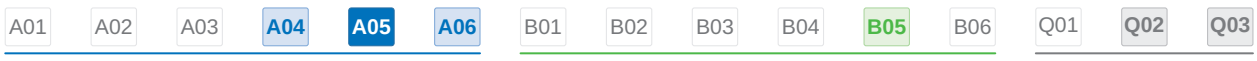


Fig. 2: Collaborations of A05.

3.1 General information about Project A06 N

3.1.1 Project title: Modelling microbial resilience and recovery

3.1.2 Research area: 2.21-02: Microbial Ecology and Applied Microbiology

3.1.3 Project leaders

Leonie Navarro, Prof. Dr. rer. nat.

Institute of Metabolic Medicine
Westhaven Research Centre
Science Avenue 3, 34567 Westhaven
(Germany)
+49 000 300-0009
leonie@example.org

Daniel Okafor, Prof. Dr. rer. nat.

Institute of Metabolic Medicine
Westhaven Research Centre
Science Avenue 3, 34567 Westhaven
(Germany)

Centre for Clinical Translation
Westhaven Research Centre
Science Avenue 3, 34567 Westhaven
(Germany)
+49 000 300-0010
daniel@example.org

- Is the employment of the project leaders at the institutions indicated contractually secured for the duration of the proposed funding period? **no** (Navarro), **no** (Okafor)
- Do any of the above mentioned persons hold fixed-term positions? **no** (Navarro), **no** (Okafor)
- Will one or more of the above-mentioned persons retire during the proposed funding period? **no** (Navarro), **no** (Okafor)
- Funding for the position of the project leaders at the institutions indicated is covered by core support (state funds or similar): **no** (Navarro), **no** (Okafor)
  - Type and source of funding: **NULL** (Navarro), **NULL** (Okafor)

3.1.4 Legal issues

This project includes	
1. research requiring compliance with discipline-specific research ethics guidelines.	✗ no
2. clinical trials	✗ no
3. experiments involving vertebrates.	✗ no
4. experiments involving recombinant DNA.	✗ no
5. research involving human embryonic stem cells.	✗ no
6. research concerning the Convention on Biological Diversity.	✗ no
7. investigations involving dual use research of concern.	✗ no

3.2 Summary

This project investigates Modelling microbial resilience and recovery. Its project leaders combine experimental and analytical approaches within the shared research programme of CRC 9999.

3.3 Research rationale

Preliminary observations motivate a new testable hypothesis. The project establishes its experimental framework and independent validation strategy during the requested funding period.

3.3.1 Project- and subject-related list of publications

Wilkinson, M. D. et al. (2016). “The FAIR Guiding Principles for scientific data management and stewardship”. In: *Scientific Data* 3.1, p. 160018. DOI: 10.1038/sdata.2016.18. (Visited on 05/31/2021).

3.4 Project plan

Aim 1: Establish reproducible experimental and analytical workflows.

Aim 2: Validate the findings in complementary models and datasets.

WP 1: Experimental framework Define the controls, sampling strategy, and analysis workflow for **Aim 1**.

WP 2: Validation and integration Test robustness and share the validated results for **Aim 2**.

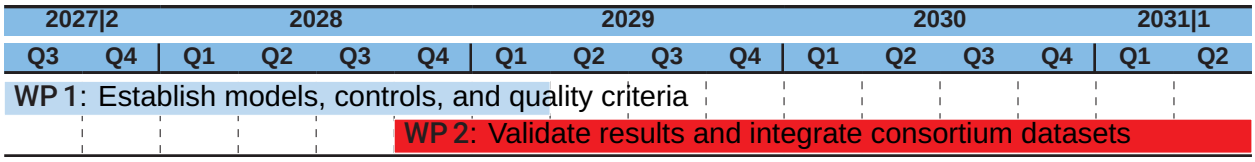


Fig. 1: Gantt chart of A06.

3.5 Relevance of sex, gender and/or diversity in the research project

Include relevant biological variables in sampling and analysis; document the rationale for each model and the limits of generalisation.

3.6 Role within the Collaborative Research Centre

Share methods, data, and validation resources with the linked projects.

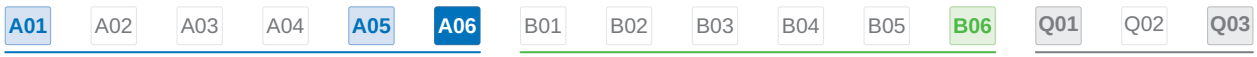


Fig. 2: Collaborations of A06.

3.7 Differentiation from other funded projects

The proposed work addresses the CRC-specific hypothesis and does not duplicate personnel or experiments supported by other grants.

3.8 Project funding

Funding for	2027|2		2028		2029		2030		2031|1	
Staff	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum
Doctoral researcher, 65 %	1	27,202	1	54,405	1	54,405	1	54,405	1	27,202
Total		27,202		54,405		54,405		54,405		27,202
Direct Costs		Sum		Sum		Sum		Sum		Sum
consumables		1,000		2,000		2,000		2,000		1,000
Total		1,000		2,000		2,000		2,000		1,000
Total		28,202		56,405		56,405		56,405		28,202

Note: Figures in EUR.

The doctoral researcher performs the experiments and integrates the data. Consumables cover sample preparation, assays, and independent validation.

3.1 General information about Project B01

3.1.1 Project title: Host defence during microbiome perturbation

3.1.2 Research areas: 2.21-03: Medical Microbiology and Mycology, Hygiene, Molecular Infection Biology, 2.21-05: Immunology, 2.22-15: Gastroenterology

3.1.3 Project leaders

Hansi Meier, Dr. rer. nat.
0000-0000-0000-0003
Department of Translational Biosciences
Partner University
Research Road 2, 54321 Partner City
(Germany)
+49 000 200-3000
hansi.meier@example.org

Alex Example, Prof. Dr. phil.
0000-0000-0000-0002
Department of Translational Biosciences
Partner University
Research Road 2, 54321 Partner City
(Germany)
+49 000 200-2000
alex.example@example.org

- Is the employment of the project leaders at the institutions indicated contractually secured for the duration of the proposed funding period? **yes** (Meier), **no** (Example)
- Do any of the above mentioned persons hold fixed-term positions? **no** (Meier), **no** (Example)
- Will one or more of the above-mentioned persons retire during the proposed funding period? **no** (Meier), **no** (Example)
- Funding for the position of the project leaders at the institutions indicated is covered by core support (state funds or similar): **yes** (Meier), **yes** (Example)

3.1.4 Legal issues

This project includes

1. research requiring compliance with discipline-specific research ethics guidelines.	✗ no
2. clinical trials	✗ no
3. experiments involving vertebrates.	✗ no
4. experiments involving recombinant DNA.	✗ no
5. research involving human embryonic stem cells.	✗ no
6. research concerning the Convention on Biological Diversity.	✗ no
7. investigations involving dual use research of concern.	✗ no

3.2 Summary

Summarise the continuing project and the work proposed for the new funding period.

3.3 Project progress to date

3.3.1 Report and current state of research

Report the previous work, published and unpublished results, and the current state of research.

3.3.2 Project- and subject-related list of publications

Wilkinson, M. D. et al. (2016). “The FAIR Guiding Principles for scientific data management and stewardship”. In: *Scientific Data* 3.1, p. 160018. DOI: 10.1038/sdata.2016.18. (Visited on 05/31/2021).

3.4 Project plan

Aim 1: Complete the mechanistic analysis.

Aim 2: Validate the findings with CRC partners.

WP 1: Mechanistic analysis Describe **WP 1**, including methods, milestones, and risks.

WP 2: Collaborative validation Describe **WP 2** and its links to **Aim 2**.

B01

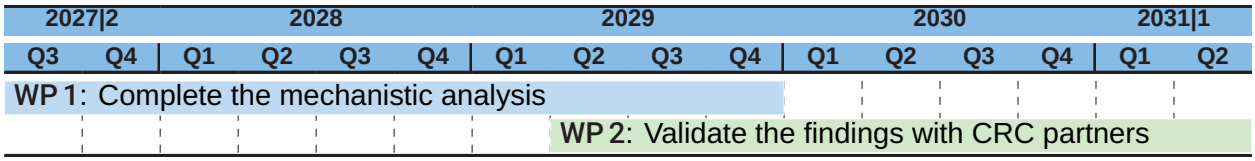


Fig. 1: Gantt chart of B01.

3.5 Relevance of sex, gender and/or diversity in the research project

Explain the relevance of sex, gender, and diversity, or justify why they do not affect this project's research questions and methods.

3.6 Role within the Collaborative Research Centre

Describe the role of the project and its reciprocal collaborations.



Fig. 2: Collaborations of B01.

3.7 Differentiation from other funded projects

Differentiate the project from other funded work of its project leaders.

3.8 Project funding

3.8.1 Previous funding

State when CRC funding began and list other relevant previous funding.

3.8.2 Requested funding

Funding for	2027|2		2028		2029		2030		2031|1	
Staff	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum
(Jr.) Research group leader, 100 %	2	105,000	2	210,000	2	210,000	2	210,000	2	105,000
Postdoctoral researcher, 100 %	1	45,000	1	90,000	1	90,000	1	90,000	1	45,000
Total		150,000		300,000		300,000		300,000		150,000
Globalfunds		Sum		Sum		Sum		Sum		Sum
Project-wide data stewardship		1,000		2,000		3,000		4,000		5,000
Total		1,000		2,000		3,000		4,000		5,000
Total		151,000		302,000		303,000		304,000		155,000

Note: Figures in EUR.

Requested funding for staff for the new funding period

	No.	Name, academic degree, position	Field of research	Departm. of (non-)univers. institution	Project commitm. (h/wk)	Category	Funding source
Requested staff							
Research staff	1.	TBA (Research group leader)	Translational microbiology	DTB		(Jr.) Research group leader	

Abbreviations: DTB: Department of Translational Biosciences (PU); PU: Partner University.

Job descriptions of staff for the proposed funding period (requested funds):

1. TBA Coordinates the experimental programme and the collaborative validation studies.

Requested funding for direct costs for the new funding period

	2027|2	2028	2029	2030	2031|1
PU: existing funds from Institutional funds	1,000	1,000	1,000	1,000	1,000

Continue on the following page …

…continuing from previous page.

	2027|2	2028	2029	2030	2031|1
Sum of existing funds	1,000	1,000	1,000	1,000	1,000
Sum of requested funds	0	0	0	0	0

Note: Figures in EUR.

Text

Experimental consumables	EUR	10,000
Data-processing services	EUR	5,000

Requested funding for instrumentation for the new funding period

Text

No instrumentation requested	EUR	0

3.1 General information about Project B02 N

3.1.1 Project title: Molecular signatures of tissue regeneration

3.1.2 Research area: 2.22-15: Gastroenterology

3.1.3 Project leaders

Kimmi Miller, Prof. Dr. rer. nat.

0000-0000-0000-0004
Department of Translational Biosciences
Partner University
Research Road 2, 54321 Partner City
(Germany)
+49 000 200-4000
kimmi.mueller@example.org

Daniel Okafor, Prof. Dr. rer. nat.

Institute of Metabolic Medicine
Westhaven Research Centre
Science Avenue 3, 34567 Westhaven
(Germany)

Centre for Clinical Translation
Westhaven Research Centre
Science Avenue 3, 34567 Westhaven
(Germany)
+49 000 300-0010
daniel@example.org

- Is the employment of the project leaders at the institutions indicated contractually secured for the duration of the proposed funding period? **yes** (Miller), **no** (Okafor)
- Do any of the above mentioned persons hold fixed-term positions? **no** (Miller), **no** (Okafor)
- Will one or more of the above-mentioned persons retire during the proposed funding period? **no** (Miller), **no** (Okafor)
- Funding for the position of the project leaders at the institutions indicated is covered by core support (state funds or similar): **yes** (Miller), **no** (Okafor)
  - Type and source of funding: **NULL**

3.1.4 Legal issues

This project includes

1. research requiring compliance with discipline-specific research ethics guidelines.	✓ yes
A statement from the responsible ethics committee is required and will be obtained before funding starts.	✗ no
2. clinical trials	✓ yes
A copy of the studies' registration is included with the proposal.	✓ yes
3. experiments involving vertebrates.	✓ yes
4. experiments involving recombinant DNA.	✓ yes
5. research involving human embryonic stem cells.	✓ yes
Legal authorization has been obtained.	✗ no
6. research concerning the Convention on Biological Diversity.	✓ yes
7. investigations involving dual use research of concern.	✓ yes
A copy of the statement by the institution's research ethics committee is included with the proposal.	✗ no

3.2 Summary

This project investigates Molecular signatures of tissue regeneration. Its project leaders combine experimental and analytical approaches within the shared research programme of CRC 9999.

3.3 Research rationale

Preliminary observations motivate a new testable hypothesis. The project establishes its experimental framework and independent validation strategy during the requested funding period.

3.3.1 Project- and subject-related list of publications

Wilkinson, M. D. et al. (2016). "The FAIR Guiding Principles for scientific data management and stewardship". In: *Scientific Data* 3.1, p. 160018. DOI: 10.1038/sdata.2016.18. (Visited on 05/31/2021).

3.4 Project plan

Aim 1: Establish reproducible experimental and analytical workflows.

Aim 2: Validate the findings in complementary models and datasets.

WP 1: Experimental framework Define the controls, sampling strategy, and analysis workflow for **Aim 1**.

WP 2: Validation and integration Test robustness and share the validated results for **Aim 2**.

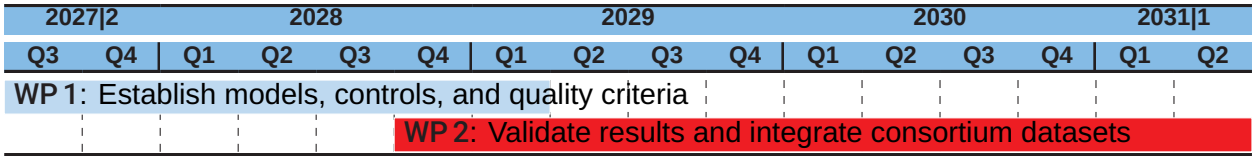


Fig. 1: Gantt chart of B02.

3.5 Relevance of sex, gender and/or diversity in the research project

Include relevant biological variables in sampling and analysis; document the rationale for each model and the limits of generalisation.

3.6 Role within the Collaborative Research Centre

Share methods, data, and validation resources with the linked projects.



Fig. 2: Collaborations of B02.

3.7 Differentiation from other funded projects

The proposed work addresses the CRC-specific hypothesis and does not duplicate personnel or experiments supported by other grants.

3.8 Project funding

Funding for	2027|2		2028		2029		2030		2031|1	
Staff	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum
Doctoral researcher, 65 %	1	27,202	1	54,405	1	54,405	1	54,405	1	27,202
Total		27,202		54,405		54,405		54,405		27,202
Direct Costs		Sum		Sum		Sum		Sum		Sum
consumables		1,000		2,000		2,000		2,000		1,000
Total		1,000		2,000		2,000		2,000		1,000
Total		28,202		56,405		56,405		56,405		28,202

Note: Figures in EUR.

The doctoral researcher performs the experiments and integrates the data. Consumables cover sample preparation, assays, and independent validation.

3.1 General information about Project B03

3.1.1 Project title: Immune circuits linking intestine and liver

3.1.2 Research area: 2.21-02: Microbial Ecology and Applied Microbiology

3.1.3 Project leaders

Hansi Meier, Dr. rer. nat.

0000-0000-0000-0003
Department of Translational Biosciences
Partner University
Research Road 2, 54321 Partner City
(Germany)
+49 000 200-3000
hansi.meier@example.org

Mira Sato, Prof. Dr. rer. nat.

Centre for Clinical Translation
Westhaven Research Centre
Science Avenue 3, 34567 Westhaven
(Germany)
+49 000 300-0011 mira@example.org

- Is the employment of the project leaders at the institutions indicated contractually secured for the duration of the proposed funding period? **yes** (Meier), **no** (Sato)
- Do any of the above mentioned persons hold fixed-term positions? **no** (Meier), **no** (Sato)
- Will one or more of the above-mentioned persons retire during the proposed funding period? **no** (Meier), **no** (Sato)
- Funding for the position of the project leaders at the institutions indicated is covered by core support (state funds or similar): **yes** (Meier), **no** (Sato)
  - Type and source of funding: **NULL**

3.1.4 Legal issues

This project includes	
1. research requiring compliance with discipline-specific research ethics guidelines.	✗ no
2. clinical trials	✗ no
3. experiments involving vertebrates.	✗ no
4. experiments involving recombinant DNA.	✗ no
5. research involving human embryonic stem cells.	✗ no
6. research concerning the Convention on Biological Diversity.	✗ no
7. investigations involving dual use research of concern.	✗ no

3.2 Summary

This project investigates Immune circuits linking intestine and liver. Its project leaders combine experimental and analytical approaches within the shared research programme of CRC 9999.

3.3 Project progress to date

The preceding funding period established the experimental models and shared datasets. The next phase tests causal mechanisms and validates their relevance across the participating projects.

3.3.1 Project- and subject-related list of publications

Wilkinson, M. D. et al. (2016). “The FAIR Guiding Principles for scientific data management and stewardship”. In: *Scientific Data* 3.1, p. 160018. DOI: 10.1038/sdata.2016.18. (Visited on 05/31/2021).

3.4 Project plan

Aim 1: Establish reproducible experimental and analytical workflows.

Aim 2: Validate the findings in complementary models and datasets.

WP 1: Experimental framework Define the controls, sampling strategy, and analysis workflow for **Aim 1**.

WP 2: Validation and integration Test robustness and share the validated results for **Aim 2**.

3.5 Relevance of sex, gender and/or diversity in the research project

Include relevant biological variables in sampling and analysis; document the rationale for each model and the limits of generalisation.

3.6 Role within the Collaborative Research Centre

Share methods, data, and validation resources with the linked projects.

3.7 Differentiation from other funded projects

The proposed work addresses the CRC-specific hypothesis and does not duplicate personnel or experiments supported by other grants.

3.8 Project funding

Funding for	2027|2		2028		2029		2030		2031|1	
Staff	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum
Doctoral researcher, 65 %	1	27,202	1	54,405	1	54,405	1	54,405	1	27,202
Total		27,202		54,405		54,405		54,405		27,202
Direct Costs		Sum		Sum		Sum		Sum		Sum
consumables		1,000		2,000		2,000		2,000		1,000
Total		1,000		2,000		2,000		2,000		1,000
Total		28,202		56,405		56,405		56,405		28,202

Note: Figures in EUR.

The doctoral researcher performs the experiments and integrates the data. Consumables cover sample preparation, assays, and independent validation.

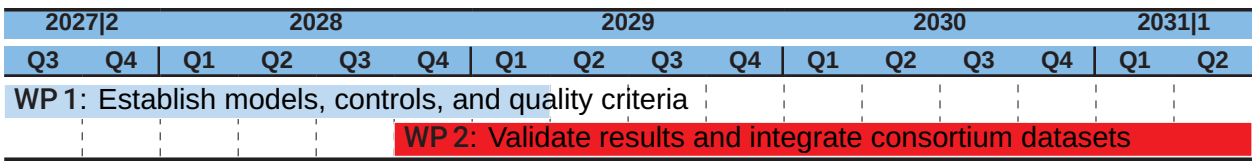


Fig. 1: Gantt chart of B03.

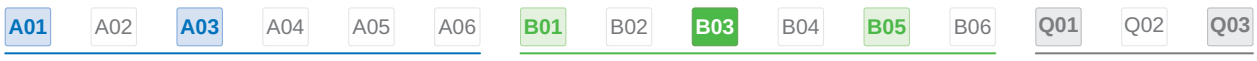


Fig. 2: Collaborations of B03.

3.1 General information about Project B04 N

3.1.1 Project title: Cross-organ consequences of inflammatory stress

3.1.2 Research area: 2.21-02: Microbial Ecology and Applied Microbiology

3.1.3 Project leaders

Kimmi Miller, Prof. Dr. rer. nat.

0000-0000-0000-0004
Department of Translational Biosciences
Partner University
Research Road 2, 54321 Partner City
(Germany)
+49 000 200-4000
kimmi.mueller@example.org

Mira Sato, Prof. Dr. rer. nat.

Centre for Clinical Translation
Westhaven Research Centre
Science Avenue 3, 34567 Westhaven
(Germany)
+49 000 300-0011 mira@example.org

- Is the employment of the project leaders at the institutions indicated contractually secured for the duration of the proposed funding period? **yes** (Miller), **no** (Sato)
- Do any of the above mentioned persons hold fixed-term positions? **no** (Miller), **no** (Sato)
- Will one or more of the above-mentioned persons retire during the proposed funding period? **no** (Miller), **no** (Sato)
- Funding for the position of the project leaders at the institutions indicated is covered by core support (state funds or similar): **yes** (Miller), **no** (Sato)
  - Type and source of funding: **NULL**

3.1.4 Legal issues

This project includes	
1. research requiring compliance with discipline-specific research ethics guidelines.	✗ no
2. clinical trials	✗ no
3. experiments involving vertebrates.	✗ no
4. experiments involving recombinant DNA.	✗ no
5. research involving human embryonic stem cells.	✗ no
6. research concerning the Convention on Biological Diversity.	✗ no
7. investigations involving dual use research of concern.	✗ no

3.2 Summary

This project investigates Cross-organ consequences of inflammatory stress. Its project leaders combine experimental and analytical approaches within the shared research programme of CRC 9999.

3.3 Research rationale

Preliminary observations motivate a new testable hypothesis. The project establishes its experimental framework and independent validation strategy during the requested funding period.

3.3.1 Project- and subject-related list of publications

Wilkinson, M. D. et al. (2016). “The FAIR Guiding Principles for scientific data management and stewardship”. In: *Scientific Data* 3.1, p. 160018. DOI: 10.1038/sdata.2016.18. (Visited on 05/31/2021).

3.4 Project plan

Aim 1: Establish reproducible experimental and analytical workflows.

Aim 2: Validate the findings in complementary models and datasets.

WP 1: Experimental framework Define the controls, sampling strategy, and analysis workflow for **Aim 1**.

WP 2: Validation and integration Test robustness and share the validated results for **Aim 2**.

3.5 Relevance of sex, gender and/or diversity in the research project

Include relevant biological variables in sampling and analysis; document the rationale for each model and the limits of generalisation.

3.6 Role within the Collaborative Research Centre

Share methods, data, and validation resources with the linked projects.

3.7 Differentiation from other funded projects

The proposed work addresses the CRC-specific hypothesis and does not duplicate personnel or experiments supported by other grants.

3.8 Project funding

Funding for	2027|2		2028		2029		2030		2031|1	
Staff	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum
Doctoral researcher, 65 %	1	27,202	1	54,405	1	54,405	1	54,405	1	27,202
Total		27,202		54,405		54,405		54,405		27,202
Direct Costs		Sum		Sum		Sum		Sum		Sum
consumables		1,000		2,000		2,000		2,000		1,000
Total		1,000		2,000		2,000		2,000		1,000
Total		28,202		56,405		56,405		56,405		28,202

Note: Figures in EUR.

The doctoral researcher performs the experiments and integrates the data. Consumables cover sample preparation, assays, and independent validation.

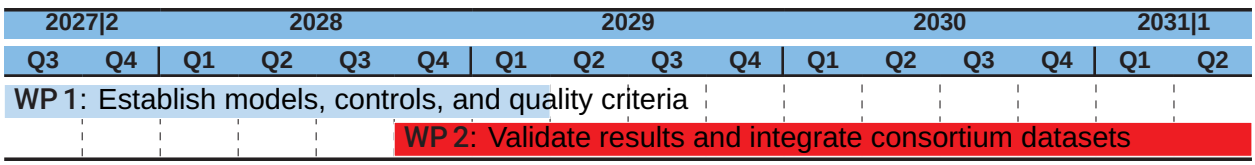


Fig. 1: Gantt chart of B04.



Fig. 2: Collaborations of B04.

3.1 General information about Project B05

3.1.1 Project title: Patient-derived models of metabolic disease

3.1.2 Research area: 2.21-02: Microbial Ecology and Applied Microbiology

3.1.3 Project leaders

Friedhelm Redata, Prof. Dr.-Ing.

0000-0000-0000-0005
Institute of Microbial Systems Medicine
Example University
University Avenue 1, 12345 Example City
(Germany)
+49 000 100-5000
friedhelm.redata@example.org

Robin Keller, Prof. Dr. rer. nat.

Institute of Microbial Systems Medicine
Example University
University Avenue 1, 12345 Example City
(Germany)

Centre for Clinical Translation
Westhaven Research Centre
Science Avenue 3, 34567 Westhaven
(Germany)
+49 000 300-0012 robin@example.org

- Is the employment of the project leaders at the institutions indicated contractually secured for the duration of the proposed funding period? **yes** (Redata), **no** (Keller)
- Do any of the above mentioned persons hold fixed-term positions? **yes** (Redata), **no** (Keller)
  - End date of fixed-term contract: **2028-12-31**
  - Further employment is planned until: **2029-01-03**
- Will one or more of the above-mentioned persons retire during the proposed funding period? **yes** (Redata), **no** (Keller)
  - Anticipated retirement date: **2054-03-10**
- Funding for the position of the project leaders at the institutions indicated is covered by core support (state funds or similar): **no** (Redata), **no** (Keller)
  - Type and source of funding: **DFG** (Redata), **NULL** (Keller)

3.1.4 Legal issues

This project includes	
1. research requiring compliance with discipline-specific research ethics guidelines.	✗ no
2. clinical trials	✗ no
3. experiments involving vertebrates.	✗ no
4. experiments involving recombinant DNA.	✗ no
5. research involving human embryonic stem cells.	✗ no
6. research concerning the Convention on Biological Diversity.	✗ no
7. investigations involving dual use research of concern.	✗ no

3.2 Summary

This project investigates Patient-derived models of metabolic disease. Its project leaders combine experimental and analytical approaches within the shared research programme of CRC 9999.

3.3 Project progress to date

The preceding funding period established the experimental models and shared datasets. The next phase tests causal mechanisms and validates their relevance across the participating projects.

3.3.1 Project- and subject-related list of publications

Wilkinson, M. D. et al. (2016). “The FAIR Guiding Principles for scientific data management and stewardship”. In: *Scientific Data* 3.1, p. 160018. DOI: 10.1038/sdata.2016.18. (Visited on 05/31/2021).

3.4 Project plan

Aim 1: Establish reproducible experimental and analytical workflows.

Aim 2: Validate the findings in complementary models and datasets.

WP 1: Experimental framework Define the controls, sampling strategy, and analysis workflow for **Aim 1**.

WP 2: Validation and integration Test robustness and share the validated results for **Aim 2**.

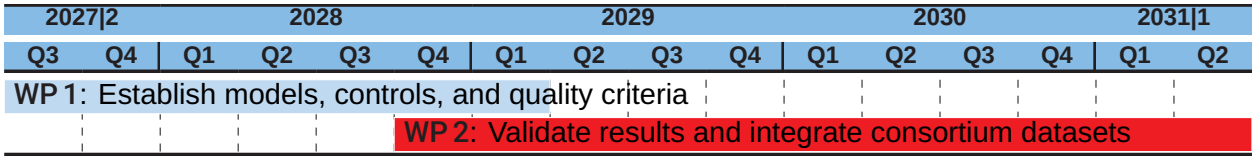


Fig. 1: Gantt chart of B05.

3.5 Relevance of sex, gender and/or diversity in the research project

Include relevant biological variables in sampling and analysis; document the rationale for each model and the limits of generalisation.

3.6 Role within the Collaborative Research Centre

Share methods, data, and validation resources with the linked projects.

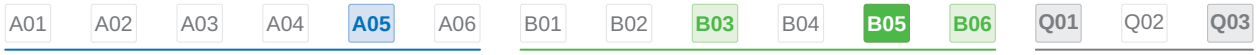


Fig. 2: Collaborations of B05.

3.7 Differentiation from other funded projects

The proposed work addresses the CRC-specific hypothesis and does not duplicate personnel or experiments supported by other grants.

3.8 Project funding

Funding for	2027|2		2028		2029		2030		2031|1	
Staff	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum
Doctoral researcher, 65 %	1	27,202	1	54,405	1	54,405	1	54,405	1	27,202
Total		27,202		54,405		54,405		54,405		27,202
Direct Costs		Sum		Sum		Sum		Sum		Sum
consumables		1,000		2,000		2,000		2,000		1,000
Total		1,000		2,000		2,000		2,000		1,000
Total		28,202		56,405		56,405		56,405		28,202

Note: Figures in EUR.

The doctoral researcher performs the experiments and integrates the data. Consumables cover sample preparation, assays, and independent validation.

3.1 General information about Project B06 N

3.1.1 Project title: Translating microbial biomarkers into interventions

3.1.2 Research area: 2.21-02: Microbial Ecology and Applied Microbiology

3.1.3 Project leaders

Daniel Okafor, Prof. Dr. rer. nat.

Institute of Metabolic Medicine
Westhaven Research Centre
Science Avenue 3, 34567 Westhaven
(Germany)

Centre for Clinical Translation
Westhaven Research Centre
Science Avenue 3, 34567 Westhaven
(Germany)
+49 000 300-0010
daniel@example.org

Robin Keller, Prof. Dr. rer. nat.

Institute of Microbial Systems Medicine
Example University
University Avenue 1, 12345 Example City
(Germany)

Centre for Clinical Translation
Westhaven Research Centre
Science Avenue 3, 34567 Westhaven
(Germany)
+49 000 300-0012 robin@example.org

- Is the employment of the project leaders at the institutions indicated contractually secured for the duration of the proposed funding period? **no** (Okafor), **no** (Keller)
- Do any of the above mentioned persons hold fixed-term positions? **no** (Okafor), **no** (Keller)
- Will one or more of the above-mentioned persons retire during the proposed funding period? **no** (Okafor), **no** (Keller)
- Funding for the position of the project leaders at the institutions indicated is covered by core support (state funds or similar): **no** (Okafor), **no** (Keller)
  - Type and source of funding: **NULL** (Okafor), **NULL** (Keller)

3.1.4 Legal issues

This project includes	
1. research requiring compliance with discipline-specific research ethics guidelines.	✗ no
2. clinical trials	✗ no
3. experiments involving vertebrates.	✗ no
4. experiments involving recombinant DNA.	✗ no
5. research involving human embryonic stem cells.	✗ no
6. research concerning the Convention on Biological Diversity.	✗ no
7. investigations involving dual use research of concern.	✗ no

3.2 Summary

This project investigates Translating microbial biomarkers into interventions. Its project leaders combine experimental and analytical approaches within the shared research programme of CRC 9999.

3.3 Research rationale

Preliminary observations motivate a new testable hypothesis. The project establishes its experimental framework and independent validation strategy during the requested funding period.

3.3.1 Project- and subject-related list of publications

Wilkinson, M. D. et al. (2016). “The FAIR Guiding Principles for scientific data management and stewardship”. In: *Scientific Data* 3.1, p. 160018. DOI: 10.1038/sdata.2016.18. (Visited on 05/31/2021).

3.4 Project plan

Aim 1: Establish reproducible experimental and analytical workflows.

Aim 2: Validate the findings in complementary models and datasets.

WP 1: Experimental framework Define the controls, sampling strategy, and analysis workflow for **Aim 1**.

WP 2: Validation and integration Test robustness and share the validated results for **Aim 2**.

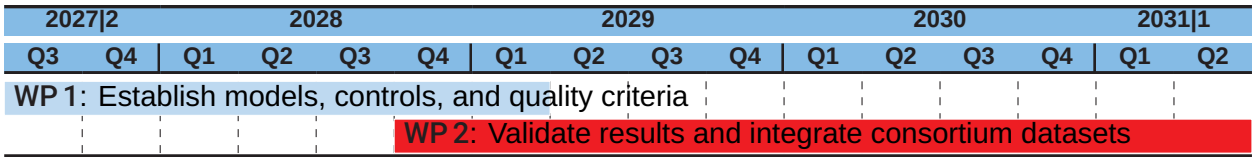


Fig. 1: Gantt chart of B06.

3.5 Relevance of sex, gender and/or diversity in the research project

Include relevant biological variables in sampling and analysis; document the rationale for each model and the limits of generalisation.

3.6 Role within the Collaborative Research Centre

Share methods, data, and validation resources with the linked projects.

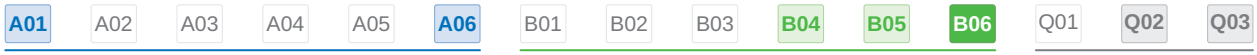


Fig. 2: Collaborations of B06.

3.7 Differentiation from other funded projects

The proposed work addresses the CRC-specific hypothesis and does not duplicate personnel or experiments supported by other grants.

3.8 Project funding

Funding for	2027|2		2028		2029		2030		2031|1	
Staff	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum
Doctoral researcher, 65 %	1	27,202	1	54,405	1	54,405	1	54,405	1	27,202
Total		27,202		54,405		54,405		54,405		27,202
Direct Costs		Sum		Sum		Sum		Sum		Sum
consumables		1,000		2,000		2,000		2,000		1,000
Total		1,000		2,000		2,000		2,000		1,000
Total		28,202		56,405		56,405		56,405		28,202

Note: Figures in EUR.

The doctoral researcher performs the experiments and integrates the data. Consumables cover sample preparation, assays, and independent validation.

3.1 General information about Project Q01

3.1.1 Project title: Integrated imaging and analysis services

3.1.2 Research areas: 2.21-02: Microbial Ecology and Applied Microbiology, 2.22-15: Gastroenterology

3.1.3 Project leaders

Alex Example, Prof. Dr. phil.

0000-0000-0000-0002
Department of Translational Biosciences
Partner University
Research Road 2, 54321 Partner City
(Germany)
+49 000 200-2000
alex.example@example.org

Noah Lindberg, Prof. Dr. rer. nat.

Centre for Computational Microbiology
Northbridge University
Science Avenue 3, 34567 Northbridge
(Germany)

Department of Experimental Immunology
Northbridge University
Science Avenue 3, 34567 Northbridge
(Germany)
+49 000 300-0007 noah@example.org

- Is the employment of the project leaders at the institutions indicated contractually secured for the duration of the proposed funding period? **no** (Example), **no** (Lindberg)
- Do any of the above mentioned persons hold fixed-term positions? **no** (Example), **no** (Lindberg)
- Will one or more of the above-mentioned persons retire during the proposed funding period? **no** (Example), **no** (Lindberg)
- Funding for the position of the project leaders at the institutions indicated is covered by core support (state funds or similar): **yes** (Example), **no** (Lindberg)
  - Type and source of funding: **NULL**

3.1.4 Legal issues

This project includes	
1. research requiring compliance with discipline-specific research ethics guidelines.	✗ no
2. clinical trials	✗ no
3. experiments involving vertebrates.	✗ no
4. experiments involving recombinant DNA.	✗ no
5. research involving human embryonic stem cells.	✗ no
6. research concerning the Convention on Biological Diversity.	✗ no
7. investigations involving dual use research of concern.	✗ no

3.2 Summary

Summarise the service portfolio, its scientific purpose, its users, and the developments planned for the new funding period.

3.3 Project progress to date

3.3.1 Report and current state of research

Report completed and ongoing services, usage by CRC projects, technical developments, quality assurance, and relevant service-project research.

3.3.2 Project- and subject-related list of publications

Wilkinson, M. D. et al. (2016). “The FAIR Guiding Principles for scientific data management and stewardship”. In: *Scientific Data* 3.1, p. 160018. DOI: 10.1038/sdata.2016.18. (Visited on 05/31/2021).

3.4 Project plan

Aim 1: Maintain and quality-assure the core service portfolio.

Aim 2: Extend the portfolio for new collaborative requirements.

WP 1: Core service provision Describe access, sample or data handover, turnaround, quality assurance, responsibilities, and capacity for **WP 1**.

WP 2: Service development Describe development milestones and the projects participating in **WP 2**.

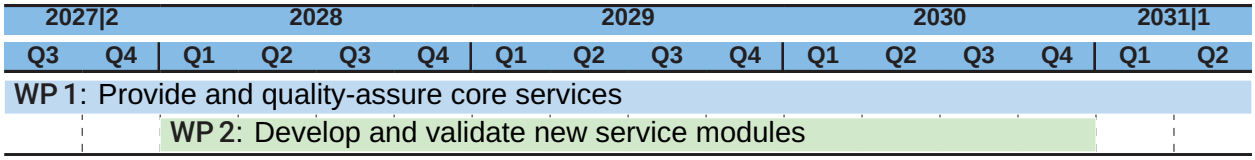


Fig. 1: Gantt chart of Q01.

3.5 Relevance of sex, gender and/or diversity in the research project

Explain relevance for the service methods and the studies supported by them.

3.6 Role within the Collaborative Research Centre

Describe which projects use the services and how priorities, access, and collaborations are coordinated.



Fig. 2: Collaborations of Q01.

3.7 Differentiation from other funded projects

Differentiate the CRC service from existing institutional infrastructure and other funded service activities.

3.8 Project funding

3.8.1 Previous funding

State when the service project began and describe relevant previous funding.

3.8.2 Requested funding

Funding for	**2027|2**		**2028**		**2029**		**2030**		**2031|1**	
Staff	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum
Non-research staff, 65 %	1	19,988	1	39,975	1	39,975	1	39,975	1	19,988
Research assistant, 50 %	1	9,000	1	18,000	1	18,000	1	18,000	1	9,000
Total		28,988		57,975		57,975		57,975		28,988
Direct Costs		Sum		Sum		Sum		Sum		Sum
Invitation		1,000		2,000		3,000		4,000		5,000
Total		1,000		2,000		3,000		4,000		5,000
Total		29,988		59,975		60,975		61,975		33,988

Note: Figures in EUR.

Requested funding for staff for the new funding period

	No.	Name, academic degree, position	Field of research	Departm. of (non-)univers. institution	Project commitm. (h/wk)	Category	Funding source
Requested staff							
Non-research staff	1.	Specialist, Service (Technical specialist)	Core-facility services	IMSM		Non-research staff	

Abbreviations: IMSM: Institute of Microbial Systems Medicine (EU); EU: Example University.

Job descriptions of staff for the proposed funding period (requested funds):

1. **Service Specialist** Operates the service platform, performs quality control, and supports participating projects.

Requested funding for direct costs for the new funding period

	2027|2	2028	2029	2030	2031|1
EU: existing funds from Core-facility funds	1,000	1,000	1,000	1,000	1,000
Sum of existing funds	1,000	1,000	1,000	1,000	1,000
Sum of requested funds	1,000	2,000	3,000	4,000	5,000

Note: Figures in EUR.

Text

Service-specific consumables	EUR	10,000
Maintenance and quality assurance	EUR	5,000

Requested funding for instrumentation for the new funding period

Text

Service-platform upgrade	EUR	5,000

3.1 General information about Project Q02

3.1.1 Project title: Integrated Research Training Group

3.1.2 Project leaders

Friedhelm Redata, Prof. Dr.-Ing.

0000-0000-0000-0005
Institute of Microbial Systems Medicine
Example University
University Avenue 1, 12345 Example City
(Germany)
+49 000 100-5000
friedhelm.redata@example.org

Leonie Navarro, Prof. Dr. rer. nat.

Institute of Metabolic Medicine
Westhaven Research Centre
Science Avenue 3, 34567 Westhaven
(Germany)
+49 000 300-0009
leonie@example.org

- Is the employment of the project leaders at the institutions indicated contractually secured for the duration of the proposed funding period? **yes** (Redata), **no** (Navarro)
- Do any of the above mentioned persons hold fixed-term positions? **yes** (Redata), **no** (Navarro)
  - End date of fixed-term contract: **2028-12-31**
  - Further employment is planned until: **2029-01-03**
- Will one or more of the above-mentioned persons retire during the proposed funding period? **yes** (Redata), **no** (Navarro)
  - Anticipated retirement date: **2054-03-10**
- Funding for the position of the project leaders at the institutions indicated is covered by core support (state funds or similar): **no** (Redata), **no** (Navarro)
  - Type and source of funding: **DFG** (Redata), **NULL** (Navarro)

3.2 Summary

Summarise the objectives, development, and added value of the Integrated Research Training Group.

3.3 Tabular report

Provide the required tabular report of all researchers funded by the Integrated Research Training Group to date.

3.4 Qualification programme

Describe the qualification programme, workshops, courses, retreats, career development measures, and other training activities.

3.5 Management and supervision

Describe management responsibilities, recruitment, supervision arrangements, mentoring, conflict-resolution processes, and quality assurance.

3.6 Environment of the Integrated Research Training Group

Describe the scientific, institutional, interdisciplinary, and international training environment.

3.7 Interim assessment and outlook

Assess progress during the current funding period and describe priorities and measurable objectives for the next funding period.

3.8 Project funding

3.8.1 Previous funding

The Integrated Research Training Group has been funded within the Collaborative Research Centre since April 2018. Replace this date and add any relevant funding under another programme.

3.8.2 Existing funds for the new funding period

Describe the coordination, training, staff, and direct-cost resources made available to the Integrated Research Training Group by the participating institutions.

Existing staff

	No.	Name, academic degree, position	Field of research	Departm. of (non-)univers. institution	Project commitm. (h/wk)	Category	Funding source
Existing staff							
Non-research staff	1.	Trainer, Taylor (Training coordinator)	Structured doctoral training	DTB	20		Partner University core funds

Abbreviations: DTB: Department of Translational Biosciences (PU); PU: Partner University.

Job descriptions of staff for the proposed funding period (supported through existing funds):

1. **Taylor Trainer** Coordinates recruitment, course administration, progress monitoring, mentoring, and quality assurance for the qualification programme.

	2027|2	2028	2029	2030	2031|1
PU: existing funds from Graduate-school funds	1,000	1,000	1,000	1,000	1,000
Sum of existing funds	1,000	1,000	1,000	1,000	1,000
Sum of requested funds	2,000	2,000	2,000	2,000	2,000

Note: Figures in EUR.

3.8.3 Requested funding

Funding for	2027|2		2028		2029		2030		2031|1	
Staff	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum
Doctoral researcher, 65 %	1	27,202	1	54,405	1	54,405	1	54,405	1	27,202
Non-research staff, 50 %	1	15,000	1	30,000	1	30,000	1	30,000	1	15,000
Total		42,202		84,405		84,405		84,405		42,202
Direct Costs		Sum		Sum		Sum		Sum		Sum
Qualification programme		2,000		2,000		2,000		2,000		2,000
Total		2,000		2,000		2,000		2,000		2,000
Fellowships		Sum		Sum		Sum		Sum		Sum
Short-term fellowships		1,000		1,000		1,000		1,000		1,000
Total		1,000		1,000		1,000		1,000		1,000
Globalfunds		Sum		Sum		Sum		Sum		Sum
Training and networking		3,000		3,000		3,000		3,000		3,000
Total		3,000		3,000		3,000		3,000		3,000
Total		48,202		90,405		90,405		90,405		48,202

Note: Figures in EUR.

3.8.4 Requested funding for staff

Text		
Doctoral-researcher position: interdisciplinary research and participation in the complete qualification programme	EUR	5,000

3.8.5 Requested funding for direct costs

Text		
Workshops and transferable-skills courses	EUR	10,000
Visiting researchers and networking	EUR	5,000

3.8.6 Requested funding for fellowships

Text		
Short-term research fellowships: state the type of fellowship, average number of fellows, average duration, monthly allowance per person, and justification	EUR	5,000

3.8.7 Requested global funds

Text		
Training and networking measures: explain the purpose, allocation rules, selection process, and administration	EUR	15,000

3.1 General information about Project Q03

3.1.1 Project title: Central coordination and data stewardship

3.1.2 Project leaders

Hansi Meier, Dr. rer. nat.

0000-0000-0000-0003
Department of Translational Biosciences
Partner University
Research Road 2, 54321 Partner City
(Germany)
+49 000 200-3000
hansi.meier@example.org

Robin Keller, Prof. Dr. rer. nat.

Institute of Microbial Systems Medicine
Example University
University Avenue 1, 12345 Example City
(Germany)

Centre for Clinical Translation
Westhaven Research Centre
Science Avenue 3, 34567 Westhaven
(Germany)
+49 000 300-0012 robin@example.org

3.2 Documentation of the central activities of the Collaborative Research Centre

Document governance and decision-making, scientific coordination, reporting, internal communication, data stewardship, publication support, equal- opportunity measures, early-career support, outreach, and the interfaces with all applicant and participating institutions. Distinguish CRC-specific tasks from permanent institutional duties and state responsibilities, workflows, results from the current period, and priorities for the new funding period.

3.3 Project funding

3.3.1 Existing funds for the new funding period

Describe the central staff, facilities, and direct-cost resources contributed by the applicant and participating institutions.

Existing staff

	No.	Name, academic degree, position	Field of research	Departm. of (non-)univers. institution	Project commitm. (h/wk)	Category	Funding source
Existing staff							
Non-research staff	1.	**Coordinator**, Jamie, Dr. rer. nat. (Scientific manager)	Research management	DTB	20		Partner University core funds

Abbreviations: DTB: Department of Translational Biosciences (PU); PU: Partner University.

Job descriptions of staff for the proposed funding period (supported through existing funds):

1. **Jamie Coordinator** Coordinates governance, reporting, internal communication, central measures, and interfaces with applicant and participating institutions.

	2027|2	2028	2029	2030	2031|1
EU: existing funds from Central university funds	1,000	1,000	1,000	1,000	1,000
Sum of existing funds	1,000	1,000	1,000	1,000	1,000
Sum of requested funds	2,000	2,000	2,000	2,000	2,000

Note: Figures in EUR.

3.3.2 Requested funding for the new funding period

Funding for	2027|2		2028		2029		2030		2031|1	
Staff	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum	Qty	Sum
Non-research staff, 100 %	1	30,750	1	61,500	1	61,500	1	61,500	1	30,750
Research assistant, 50 %	1	12,500	1	25,000	1	25,000	1	25,000	1	12,500
Total		43,250		86,500		86,500		86,500		43,250
Direct Costs		Sum		Sum		Sum		Sum		Sum
Central coordination and communication		2,000		2,000		2,000		2,000		2,000
Total		2,000		2,000		2,000		2,000		2,000
Globalfunds		Sum		Sum		Sum		Sum		Sum
Central measures		2,000		2,000		2,000		2,000		2,000
Total		2,000		2,000		2,000		2,000		2,000
Total		47,250		90,500		90,500		90,500		47,250

Note: Figures in EUR.

3.3.3 Requested funding for staff

Text		
Scientific coordination: justify the category, percentage, period, and CRC-specific responsibilities	EUR	5,000

3.3.4 Requested funding for direct costs

Text		
Governance meetings and scientific exchange	EUR	10,000
Communication and outreach	EUR	5,000

3.3.5 Requested global funds

Text		
Central measures: explain the purpose, allocation rules, selection process, and administration	EUR	10,000

3.1 General information about Project A00 (former project) E

3.1.1 Project title: Former project on microbial community dynamics

3.1.2 Project leaders

Kimmi Miller, Prof. Dr. rer. nat.

0000-0000-0000-0004
Department of Translational Biosciences
Partner University
Research Road 2, 54321 Partner City
(Germany)
+49 000 200-4000
kimmi.mueller@example.org

Daniel Okafor, Prof. Dr. rer. nat.

Institute of Metabolic Medicine
Westhaven Research Centre
Science Avenue 3, 34567 Westhaven
(Germany)

Centre for Clinical Translation
Westhaven Research Centre
Science Avenue 3, 34567 Westhaven
(Germany)
+49 000 300-0010
daniel@example.org

3.2 Project history

3.2.1 Report

Describe the complete funding history, objectives, methods, results, and contribution of the ending project. Citations used only in the report are printed automatically at the end of this environment. This dummy citation also demonstrates the exclusion of a result listed below (Wilkinson et al. 2016).

References

3.2.2 Published project results

Publications with scientific quality assurance

Wilkinson, M. D. et al. (2016). “The FAIR Guiding Principles for scientific data management and stewardship”. In: *Scientific Data* 3.1, p. 160018. DOI: 10.1038/sdata.2016.18. (Visited on 05/31/2021).

Other publications and published results

None.

Patents

None.

3.3 Funding

Funding of this project within the Collaborative Research Centre started in April 2018. The project will be completed by the end of the current funding period. Replace these dates and, where applicable, add previous funding under another DFG programme and its reference number.

3.3.1 Project staff in the ending funding period

	No.	Name, academic degree, position	Field of research	Departm. of (non-)univers. institution	Project commitm. (h/wk)	Category	Funding source
Existing staff							
Research staff	1.	**Miller**, Kimmi, Prof. Dr. rer. nat. (Professor of Molecular Medicine)	Molecular tissue regeneration	DTB	8		State funds

Continue on the following page …

…continuing from previous page.

	No.	Name, academic degree, position	Field of research	Departm. of (non-)univers. institution	Project commitm. (h/wk)	Category	Funding source
Staff funded with approved grant money							
Research staff	2.	TBA (Postdoctoral researcher)	Regenerative cell biology	DTB		Postdoctoral researcher	

Abbreviations: DTB: Department of Translational Biosciences (PU); PU: Partner University.

Job descriptions of staff (supported through existing funds):

1. **Kimmi Miller** Led the project, supervised the experimental work, and integrated its results across the CRC throughout the ending funding period.

Job descriptions of staff (funded with approved grant money):

2. **TBA** Completed the final validation experiments and data publication from April 2025 until the end of the current funding period.

4 Bylaws of the Collaborative Research Centre

§1 Name, coordinating university, and purpose of the Collaborative Research Centre

§1.1 The Collaborative Research Centre (CRC) “Mechanisms of Host–Microbiome Communication – From Molecular Interactions to Organ Function” is a legally dependent institution of Example University.

§1.2 The Collaborative Research Centre conducts interrelated research on microbial signalling, epithelial barriers, immune regulation, and organ function. It is divided into research project areas and central projects.

§1.3 The Collaborative Research Centre promotes interaction with other research institutions, supports researchers in early career phases, and fosters responsible international cooperation, equity, and equal opportunity.

§2 Membership and governing bodies

§2.1 Members are the project leaders and persons appointed to central scientific or administrative responsibilities by the general assembly.

§2.2 The governing bodies are the general assembly, the spokesperson, and the steering committee. The general assembly elects the spokesperson and steering committee for the applicable funding period.

§2.3 The steering committee prepares strategic and budgetary decisions, monitors milestones, and reports to the general assembly at least once per year.

§3 Decisions and allocation of shared resources

§3.1 Decisions are normally taken by simple majority of members present; changes to these bylaws require a two-thirds majority.

§3.2 Shared funds and infrastructure are allocated through documented, transparent procedures based on scientific need, feasibility, and equal access across participating projects.

§3.3 Members disclose conflicts of interest and do not participate in the corresponding deliberation or decision.

§4 Research integrity, equity, and conflict resolution

§4.1 All members follow the applicable rules of good research practice, data protection, animal welfare, research ethics, and occupational safety.

§4.2 The CRC implements equal-opportunity and accessibility measures and monitors participation in recruitment, training, and governance.

§4.3 Concerns may be raised confidentially with the spokesperson, the CRC management, or the competent independent offices of the participating institutions.

§5 Research-data governance

§5.1 Projects document data, code, samples, access rights, retention, and publication in project-specific data-management plans.

§5.2 Central data stewardship defines common metadata and quality standards, manages controlled access, and supports publication according to the FAIR principles and applicable legal requirements.

5 Declarations

I/We hereby confirm the accuracy of the information contained in the proposal, including the research profiles.

The *DFG Rules of Procedure for Dealing with Scientific Misconduct* (*known as VerfOwF*) apply to individuals with a high level of scientific/academic responsibility in connection with funding proposals submitted by universities. The applicant university confirms that all individuals with a high level of scientific/academic responsibility in the project proposal submitted by the university (cf. programme guidelines, DFG form 50.06) recognise the *DFG Rules of Procedure for Dealing with Scientific Misconduct* as legally binding by submitting a corresponding declaration of commitment.

In submitting this proposal, all project leaders undertake to comply with the relevant discipline-specific research ethics guidelines, to determine whether a statement from the responsible ethics committee is required and, where necessary, to obtain it in good time before the start of funding. They will inform the DFG immediately if an ethics committee expresses substantive concerns or issues a negative statement and will submit the statement if the DFG requests it.

The DFG takes the protection of your personal data very seriously. Please note the DFG's data protection notice on research funding, which can be viewed and downloaded at `www.dfg.de/privacy_policy`

Please forward this information to those individuals whose data will be processed by the DFG because they are mentioned in your proposal.

I/We have read the DFG's data protection notice.

I/We consent to the processing and transfer of special categories of personal data (including the data of all parties involved) for the purposes stated in the Privacy Policy if, after careful consideration, I/we provide such data either now or at a later date.

Example City
<date>

Prof. Dr. med. Morgan Sample
(Spokesperson of Collaborative Research Centre)

Example City
<date>

Prof. Dr. Casey President
(Rector, chancellor, or president of Partner University)

Example City
<date>

Prof. Dr. Robin Rector
(Rector, chancellor, or president of Example University)



Project	Title	Project leader(s)
A01	Microbial signalling across epithelial barriers	Kim **Sample** Alex **Example**
A02 N	Metabolic control of tissue-resident immunity	Kim **Sample** Samira **Hartmann**
A03	Microbiome-derived metabolites and immune memory	Samira **Hartmann** Noah **Lindberg**
A04 N	Spatial niches of host–microbe interactions	Noah **Lindberg** Alexis-Marie **Winters-Scholz**
A05	Dietary control of microbial community dynamics	Alexis-Marie **Winters-Scholz** Leonie **Navarro**
A06 N	Modelling microbial resilience and recovery	Leonie **Navarro** Daniel **Okafor**
B01	Host defence during microbiome perturbation	Hansi **Meier** Alex **Example**
B02 N	Molecular signatures of tissue regeneration	Kimmi **Miller** Daniel **Okafor**
B03	Immune circuits linking intestine and liver	Hansi **Meier** Mira **Sato**
B04 N	Cross-organ consequences of inflammatory stress	Kimmi **Miller** Mira **Sato**
B05	Patient-derived models of metabolic disease	Friedhelm **Redata** Robin **Keller**
B06 N	Translating microbial biomarkers into interventions	Daniel **Okafor** Robin **Keller**
Q01	Integrated imaging and analysis services	Alex **Example** Noah **Lindberg**
Q02	Integrated Research Training Group	Friedhelm **Redata** Leonie **Navarro**
Q03	Central coordination and data stewardship	Hansi **Meier** Robin **Keller**