

### Geconcentreerde Onderzoekacties

1	Lordship and Agrarian Capitalism in the Low Countries, c. 1350-1650 (2022-2026) Prof. Frederik Buylaert, prof. Thijs Lambrecht, prof. Dirk Heirbaut
2	Migration, diet and health and the first permanent settlers of Belgium: inter- and multi-disciplinary perspectives (2022-2025) Prof. Isabelle De Groote, prof. Philippe Crombé, prof. Maarten Dhaenens, prof. Marta Costas Rodriguez
3	Replication fork protector dependency factors: novel targets for combination treatment and immunomodulation in neuroblastoma (REINFORCE) (2022-2025) Prof. Franki Speleman, prof. Bram De Wilde, prof. Sven Eyckerman, prof. Steven Goossens, prof. Charlotte Scott, prof. Jo Vandesompele
4	DEBRIEF: dsRNA delivery systems to boost RNAi efficacy – DEBRIEF (2022-2026) Prof. Els Van Damme, prof. Peter Dubruel, prof. Guy Smagghe
5	Molecular Machines that communicate through Chemical Signaling (MM-CS). (2022-2026) Prof. Richard Hoogenboom, prof. Dagmar D'hooge
6	Microspore embryoGENESIS: a path to life or death. (2022-2026) Prof. Danny Geelen, prof. Inge De Clercq, prof. Moritz Nowack, prof. Frank Van Breusegem, prof. Daniël Van Damme
7	Soft and flexible technologies for electrical and optical modulation of the epileptic brain. (2022-2025) Prof. Paul Boon, prof. Wout Joseph, prof. Jeroen Missinne, prof. Georgios Spyropoulos, prof. Emmeric Tanghe, prof. Sandra Van Vlierberghe, prof. Jan Vanfleteren
8	Microbes-4-Immunity: single-cell based sorting and investigation of the functional microbiome in intestinal and extra-intestinal immune homeostasis. (2022-2026) Prof. Tom Van de Wiele, prof. Debby Laukens, prof. Triana Lobaton Ortega, prof. Filip Van den Bosch, prof. Lars Vereecke
9	Cut-and-paste chemistry: from circular plastics to immunotherapeutics (2021-2025) Prof. Filip Du Prez, prof. Bruno De Geest, prof. Johan Winne
10	The changing face of local democracy? The impact of citizen participation on attitudes, roles, relationships and legitimacy perceptions of democratic institutional stakeholders (2021-2024) Prof. Bram Verschuere, prof. Arne Roets, prof. Kristof Steyvers, prof. Bram Wauters
11	Photonic Network-on-Wafer for Multi-Tile GPUs: From Architecture to Hardware Implementation (2021-2025) Prof. Lieven Eeckhout, prof. Johan Bauwelinck, prof. Mario Pickavet, prof. Günther Roelkens
12	An integrated translational platform to improve the management and outcome of rare heritable connective tissue disease (2021-2025) Prof. Paul Coucke, prof. Bert Callewaert, prof. Julie De Backer, prof. Ann Huysseune, prof. Fransiska Malfait, prof. Patrick Segers, prof. Olivier Vanakker
13	Targeting the Tumor Microenvironment in Colorectal Peritoneal Metastases (2021-2024) Prof. Wim Ceelen, prof. Geert Berx, prof. Olivier De Wever, prof. Katrien Remaut
14	Interconnected Texts. A graph-based computational approach to Byzantine paratexts as nodes between textual transmission and cultural and linguistic developments (2021-2025) Prof. Kristoffel Demoen, prof. Klaas Bentein, prof. Floris Bernard, prof. Guy De Tré, prof. Els Lefever
15	Extracellular vesicle (EV) transport across the brain barriers: from mechanistic and biological insights towards strategies for delivery of therapeutics to the brain. (2021-2024) Prof. Roosmarijn Vandenbroucke, prof. Kevin Braeckmans, prof. Kris Gevaert, prof. An Hendrix

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16	Proteomics-derived epitopes for dramatically improved anticancer and antibacterial vaccine development (2021-2024) Prof. Lennart Martens, prof. Francis Impens, prof. Bart Vandekerckhove, prof. Karim Vermaelen
17	Identification of adaptive mechanisms leading to reduced antibiotic susceptibility in bacterial biofilms using experimental evolution and machine learning approaches (2020-2024) Prof. Tom Coenye, prof. Filip Van Nieuwerburgh, prof. Willem Waegeman, prof. Serge Van Calenbergh
18	Integration of novel thin films with photonic circuits for telecom, quantum optics and neuromorphic computing (2020-2024) Prof. Dries Van Thourhout, prof. Jeroen Beeckman, prof. Peter Bienstman, prof. Klaartje De Buysser, prof. Xin Yin
19	The Role of Supporting Entrepreneurship (SE) Actors for Early Stage High Tech Firms (2020-2024) Prof. Mirjam Knockaert, prof. Tom Vanacker, prof. Sophie Manigart, prof. Jonas Lang
20	Unraveling belowground de novo organogenesis in plants: one cell at a time (2020-2025) Prof. Tom Beeckman, prof. Tina Kyndt, prof. Bert De Rybel
21	The role of cognitive effort in motivated behaviour: a neurocognitive approach (2020-2024) Prof. Roeljan Wiersema, prof. Wim Notebaert, prof. Nico Böhler, prof. Ruth Krebs
22	Non-thermal plasma technology as innovative strategy for food preservation (2020-2024) Prof. Nathalie De Geyter, prof. Frank Devlieghere, prof. Peter Ragaert, Prof. Bruno De Meulenaer (BW23)
23	Precision medicine in inherited blindness using integrated omics in human and animal models (2020-2025) Prof. Elfride De Baere, prof. Björn Menten, prof. Lieven Clement, prof. Kris Vleminckx, prof. Bart Leroy
24	Forest biodiversity and multifunctionality drive chronic stress-mediated dynamics in pathogen reservoirs (2020-2025) Prof. Kris Verheyen, prof. An Martel, prof. Luc Lens, dr. Diederik Strubbe
25	Making Nanomaterials Work (2019-2023) Prof. Zeger Hens, prof. Christophe Detavernier, prof. Iwan Moreels, dr. Jolien Dendooven
26	Language productivity at work (2019-2023) Prof. Peter Lauwers, Prof. Johanna Barddal, Prof. Timothy Coleman, Prof. Renata Enghels, Prof. Robert Hartsuiker, Prof. Miriam Taverniers, Dr. Ludovic De Cuypere, Dr. Alice Foucart, Dr. Anne-Sophie Ghyselen
27	High Tide – Low Tide. Bruges’ late-medieval harbor system as a maritime cultural landscape (2019-2023) Prof. Wim De Clercq, Prof. Jan Dumolyn, Prof. Stephen Louwye
28	A comprehensive chemical-biology approach to understand the bioactivity of Pseudomonas cyclic lipopeptides on eukaryotic membranes (2019-2022) Prof. Monica Höfte, Prof. Christophe Ampe, Prof. Annemieke Madder, Prof. José Martins
29	RNA-MAGIC: RNA-based bioMArkers and tarGets In Asthma and Chronic Obstructive Pulmonary Disease (COPD) (2019-2023) Prof. Guy Brusselle, Prof. Guy Joos, Prof. Pieter Mestdagh, Prof. Stefaan De Smedt, Prof. Koen Raemdonck, Prof. Tania Maes, Prof. Ken Bracke

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30	Combining plasma treatment and (photo)catalysis towards an energy-efficient technology for abatement of polluted air (COP-CAT) (2019-2024) Prof. Dirk Poelman, Prof. Geraldine Heynderickx, Prof. Joris Thybaut, Prof. Rino Morent
31	Impact van CO <sub>2</sub> en H <sub>2</sub> op materiaaldegradatie tijdens elektrochemische processen (2019-2023) Prof. Korneel Rabaey, prof. Kim Verbeken
32	Elucidating the details of the interaction between specific nutrients-microbiota-intestinal health and the consequences for inflammatory diseases (2019-2023) Prof. Claude Libert, Prof. Rudi Beyaert, Prof. Filip Van Immerseel, Dr. Jens Staal
33	Search for new physics beyond the Standard Model of particle physics (2018-2022) Prof. Dirk Ryckbosch, Prof. Didar Dobur
34	Generic materials study towards high quality advanced medical, food and engineering 3D structures (2018-2022) Prof. Geert De Schutter, Prof. Koen Dewettinck, Prof. Pieter Cornillie, Prof. Ludwig Cardon
35	Understanding biotic stresses in plant roots through molecular interactomics in tomato (2018-2022) Prof. Alain Goossens, Prof. Godelieve Gheysen, Prof. Sofie Goormachtig
36	Unravelling cellular heterogeneity and dynamics in normal and malignant hematopoiesis using single-cell bioinformatics (2018-2022) Prof. Yvan Saeys, Prof. Martin Guilliams, Prof. Tom Taghon, Prof. Pieter Van Vlierberghe
37	Ex ovo omnia: from stem cell to oocyte (2018-2022) Prof. Ann Van Soom, Prof. Dieter Deforce, Prof. Petra De Sutter, Prof. Luc Peelman
38	Multi-biofortification of rice: a molecular and analytical study (2018-2023) Prof. Dominique Van Der Straeten, Prof. Christophe Stove
39	Assessing the biological capacity for marine ecosystem resilience: Acclimation and adaptation in a rapidly changing environment (2017-2022) Prof. Ann Vanreusel, Prof. Marleen De Troch, Prof. Olivier De Clerck, Prof. Bernard De Baets, Dr. Jan Baetens, Prof. Tom Moens