



# Prof. Dr. Magdalena Radwanska

Department of Molecular Biotechnology  
Center for Biomedical Research



**Office** #831, Ghent University Building, Incheon Global Campus, 119-5 Songdomunhwa-Ro, Yeonsu-Gu, Incheon, Korea



**Phone** +82 32 626 4208



**Email** [magdalena.radwanska@ghent.ac.kr](mailto:magdalena.radwanska@ghent.ac.kr)

## Short Biographie

**Professor Dr. Magdalena Radwanska** obtained her PhD from the Université Libre de Bruxelles, Belgium. She has an extensive scientific expertise in molecular diagnostics, biomarker discovery, and vaccine development against infectious diseases. She is a postdoctoral fellow of the Tufts/Cummings University MA, USA and the University of Cape Town, South Africa. She managed diagnostic projects at the Foundation for Innovative New Diagnostics (FIND) in Geneva, Switzerland, under a patronage of the Bill & Melinda Gates Foundation. She provided advice on research policy and priorities for Europe while working at Science Europe, Brussels, Belgium. Prof. Radwanska joined the GUGC in 2015. She teaches Microbiology, Molecular Biological Analysis, Immunology, and Animal Biology. Currently, she serves as a Director of the Biomedical Research Center at GUGC.

Research conducted at the GUGC focuses on understanding of various mechanisms underlying B cell dis-function and vaccine failure against parasitic and bacterial diseases. In particular, Professor Radwanska is interested in the events triggering apoptosis in B cells and causing loss of memory responses. Various gene candidates are being analyzed with the purpose of identifying rescue gene targets capable of preventing B cells depletion. In the context of vaccine design, her research includes identification of novel pattern associated molecular patterns (PAMPs) and their interactions with corresponding pattern recognition receptors (PRRs). Moreover, conducted vaccination studies also involve analyzing the role of mucosal immunity and microbiome functions. Currently, various research projects are performed in collaboration with the Vrije Universiteit Brussel, Brussels, Belgium, the Korea University, the Duksung Women's University, South Korea, and Glasgow University, UK.

## Research Area

- Vaccinology and B cell biology
- Identification of novel adjuvants and pattern recognition receptors
- Disease models: *Trypanosoma spp*, *Leishmania spp*, *Schistosoma spp*, *Bordetella pertussis*

## Education

MSc, Warsaw University, Poland

PhD, Université Libre de Bruxelles, Brussels, Belgium

## Experience

Postdoctoral Fellow, Tropical Institute, Antwerp, Belgium

Postdoctoral Fellow, University of Cape Town, South Africa

Postdoctoral Fellow, Tufts University/Cummings School, Boston, MA, USA

Senior Scientific Manager, Foundation for Innovative New Diagnostics, Geneva, Switzerland and Science Europe, Brussels, Belgium

Professor, Ghent University Global Campus, South Korea and Gent University, Belgium

Director of the Biomedical Research Center, GUGC, South Korea

## Top 5 Selected Publications

Infections with extracellular trypanosomes require control by efficient innate immune mechanisms and can result in the destruction of the mammalian humoral immune system. *Front. Immunology* 2020 Mar 11, 11:382. doi: 10.3389/fimmu.2020.00382

African Trypanosomes undermine humoral responses and vaccine development: link with inflammatory responses? *Front. Immunology* 2017 May 24, 8:582. doi: 10.3389/fimmu.2017.00582

*Trypanosoma brucei* Co-opts NK Cells to Kill Splenic B2 B Cells.. *PLoS Pathog.* 2016 Jul 12;12(7):e1005733. doi: 10.1371/journal.ppat.1005733.

Emerging trends in the diagnosis of human African Trypanosomiasis. 2010 Dec;137(14):1977-86. doi: 10.1017/S0031182010000211.

Trypanosomiasis-induced B cell apoptosis results in loss of protective anti-parasite antibody responses and abolishment of vaccine-induced memory responses.. *PLoS Pathog.* 2008 May 30;4(5):e1000078. doi: 10.1371/journal.ppat.1000078.

## Science Policy Publications and Popularizing Science:

Career Paths in Multidisciplinary Research (Science Europe publications 2016)

The Importance of International Collaboration for Frontier Research (Science Europe Publications 2016).

Computation Modelling of Spatial Structures and Processes in Natural and Life Sciences (Science Europe publications 2015).

Integrated Research Tools and Strategies for Sustainable Management of Health, Food Security, Natural Resources, Ecosystems, Biodiversity and Climate Change (Science Europe publications 2014).

---

### Full Bibliography URL Link

<https://biblio.ugent.be/person/802002071994>

---

### Research Field of Interests

- B cell biology
- Antibody engineering
- Vaccinology

---

### Organization of Interests visiting, research collaboration, networking, etc.

- Celltrion, Samsung Biologics, Seegene, Green Cross Corporation (GC Pharma)