

Anna Świerzko

PROFESSOR – INSTITUTE OF MEDICAL BIOLOGY

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Currently held positions

Institute of Medical Biology of the Polish Academy of Sciences

PROFESSOR

Lodz

Scientific profile and collaborations

I focus my research on the complement lectin pathway (LP), an innate immune mechanism that is critical for the clearance of bacterial, viral, and fungal infections. I am investigating the connection between infection susceptibility (especially in newborns) and impaired synthesis of lectin pathway pattern recognition molecules (collectins and ficolins) and associated serine proteases (MASPs). I am also working on mechanisms of interactions of LP factors with microorganisms.

Moreover, I am also interested in the complement system-associated processes contributing to the development of inflammation in the body, resulting from infections, autoimmune disease, cancer and surgery-associated complications. I have established cooperation with researchers from Finland (University of Helsinki), Japan (Juntendo University, Fukushima Medical University School of Medicine), Denmark (Aarhus University) and Poland [University of Silesia (Katowice), Institute of Immunology and Experimental Therapy PAS (Wroclaw) and Centre of Molecular and Macromolecular Studies PAS (Łódź)].

Selected publications

2003 *Role of the complement-lectin pathway in anaphylactoid reaction induced with lipopolysaccharide in mice* [\[link\]](#)

2023 *Association of low ficolin-2 concentration in cord serum with respiratory distress syndrome in preterm newborns* [\[link\]](#)
The role of complement activating collectins and associated serine proteases in patients with hematological malignancies, receiving high-dose chemotherapy, and autologous hematopoietic stem cell transplantations (Auto-HSCT) [\[link\]](#)

2018 *malignancies, receiving high-dose chemotherapy, and autologous hematopoietic stem cell transplantations (Auto-HSCT)* [\[link\]](#)

Research grants

Principal Investigator: 5 grants: KBN, NCN

Co-Investigator: 17 grants: KBN, NCN, POIG, Norweski Mechanizm Finansowy oraz MNiSzW

Obtained patents

1 (European Union, Russian Federation, USA, Poland)

International research stays

Germany, Forschungsinstitut Borstel, Institut für Experimentelle Biologie und Medizin, team of Prof. Helmut Brade

Japan, Jichi Medical School, team of Prof. Masayasu Nakano

Japan, International Medical Center of Japan, team of Prof. Teruo Kirikae