

## BEÁTA VÁRKONYI



National Academy of Scientist Education, 4<sup>th</sup> year

University of Debrecen,  
Faculty of Medicine, 4<sup>th</sup> year

#### YEAR OF BIRTH

2002

#### FORMER SZENT-GYÖRGYI PUPIL

no

#### RESEARCH UNIT

University of Debrecen

#### SZENT-GYÖRGYI MENTOR

László Virág

#### JUNIOR MENTOR

Máté Demény

#### SPECIALIZATION

Cell biology

#### SECONDARY SCHOOL

University of Debrecen,  
Kossuth Lajos Practical High  
School and Primary School

#### NAME OF TEACHER

Dr. Edit Róza Futóné  
Monori, Edina Lovas-  
Kiss, Dr. Adrienn  
Krakompergerné Aros

#### LANGUAGES

English  
German  
French

#### IMPORTANCE, AIMS AND POSSIBLE OUTCOME OF RESEARCH

My research focuses on the interaction between tumour cells and macrophages. Using a co-culture system of breast cancer cells and macrophages, I investigate the role of PARP enzyme family members in the process by which the tumour reprograms tumour-associated macrophages into a tumour cell growth promoting phenotype. I plan to study the role of the post-translational protein modification process called ADP-ribosylation catalyzed by PARP enzymes, in the tumour cell-induced metabolic, transcriptional and signalling processes of macrophages. The aim and expected outcome of the research is to identify ADP-ribosylation-regulated proteins in macrophages that may be targets for reprogramming efforts towards a tumour-killing immune cell phenotype.

#### AMBITIONS AND CAREER GOALS

I intend to learn the research approach during my university years and then apply it in the clinic. I would like to gain experience abroad as well, which I plan to apply to my work here in Hungary. My aim is to learn as much as possible about the literature, to keep up to date with it and thus to gain a more complete picture of the challenges and achievements of the medical profession. I plan to obtain a PhD after graduating from medical school and to continue the research work I have already started.

#### HONORS AND PRIZES

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#### PUBLICATIONS

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