

ZSOLT FERENC NAGY



National Academy of Scientist Education, 1st year

University of Szeged
Albert Szent-Györgyi Medical School, 1st year

YEAR OF BIRTH

2005

FORMER SZENT-GYÖRGYI PUPIL

yes

SZENT-GYÖRGYI MENTOR

Szilvia Juhász

JUNIOR MENTOR

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SPECIALIZATION

tumour biology

SECONDARY SCHOOL

Szilágyi Erzsébet High School and Dormitory, Eger

NAME OF TEACHER

Dóra Kassainé Csuti

LANGUAGES

English/C1

IMPORTANCE, AIMS AND POSSIBLE OUTCOME OF RESEARCH

The human microbiome constitutes a intricate, multi-kingdom community engaged in a symbiotic relationship with the host across various body sites. Interactions between the host and microbiome significantly influence numerous physiological processes and diverse disease conditions. Over the past decade, there has been a growing acknowledgment of microbiome communities potentially affecting the development, progression, metastasis formation, and treatment response in various cancer types. Although causal evidence for microbial impacts on cancer biology is still in its early stages of exploration, an enhanced molecular understanding of these interactions and their effects on cancer treatment is deemed of substantial scientific importance and clinical relevance.

For exploring the genomic landscape of cancer cells, Whole Genome Sequencing (WGS) emerges as a versatile tool in studying the role of both host-coupled (endogenous) and microbiome-coupled (exogenous) factors influencing these signatures, thereby facilitating patient stratification. By incorporating additional experimental strategies such as DNA damage response profiling and high-resolution whole-genome sequencing of cancer cells to study tumor microevolution, we harness cutting-edge technologies. This all-encompassing approach is designed to pinpoint potential biomarkers for cancer associated with bacteria. Over the long term, the insights gleaned from this research are expected to enhance preventive medicine, ultimately making a meaningful impact on personalized healthcare.

AMBITIONS AND CAREER GOALS

As a short term goal for my future years, I set out to acquire the skills and knowledge provided by both the University and the Academia as effectively as possible. I would like to become a valuable member for my research team and take a glance into the depths of the academic lifestyle. After graduation, I aim to continue my research as a postgraduate student within the boundaries of the Program. Not only do I aspire to learn throughout a lifetime, but I also want to be a part of the scientific community of the future.

HONORS AND PRIZES

2022/2023 Chemistry OKTV, II. category, 22th place

PUBLICATIONS

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