Benedek Sipos

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PROFILE

Undergraduate student at UC Berkeley and researcher with a passion for the human body, and a diverse international background. Currently researching kidney development and regeneration at UCSF. Worked in a research group investigating Jupiter's auroral X-ray and UV light emissions throughout high school, leading to the discovery of a "Dark Polar Region". Our findings were published in the Geophysical Research Letters scientific journal.

EDUCATION

Aug 2022 — May 2025

University of California Berkeley

BA, Molecular and Cell Biology.

Emphasis: Cell Biology, Development, and Physiology.

Aug 2020 — Jul 2022

Saint Gilgen International School

IB Diploma:

- Biology Higher Level
- Chemistry Higher Level
- Math Analysis & Approaches Higher Level
- Geography Higher Level

Aug 2015 — Jul 2020

Danube International School Vienna

IB MYP Certificate

RESEARCH EXPERIENCE

Sep 2023 — Present

Undergraduate Researcher, UCSF CVRI

San Francisco

- Studied the kidney's regenerative pathways to understand ways in which they can be controlled
- Created a new way to visualize and quantify key proteins in mouse kidneys that are highly influential in kidney regeneration using fluorescent microscopy and digital quantification
- Experimented with both human kidney cells and mouse kidneys to find ways to increase the expression of proteins that play a key role in kidney regeneration

SKILLS

Immunofluorescent Staining	Expert	Cell Culture Maintenance and Treatment	Experienced
Fluorescent Microscopy	Expert	Mouse Handling, Euthanasia and Organ Harvesting	Experienced
Cryosectioning	Expert	Gel Electrophoresis	Skillful
PCR and qPCR	Experienced	DNA Cloning	Skillful
RNA Isolation	Experienced		

LANGUAGES

English	Native speaker	Hungarian	Native speaker
German	Native speaker	Spanish	B2

PUBLICATIONS

Dunn, W. R., Weigt, D. M., Grodent, D., Yao, Z. H., May, D., Feigelman, K., Sipos, B., Fleming, D., et.al (2022). "Jupiter's X-Ray and UV Dark Polar Region." Geophysical Research Letters, 49(11).

https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021GL097390