



Peter HANTZ

Date of birth: 01/02/1974 | **Nationality:** Hungarian, Romanian | **Gender:** Male |

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<https://www.facebook.com/peter.hantz> | **Researchgate:**

<https://www.researchgate.net/profile/Peter-Hantz> | **tiktok:**

<https://www.tiktok.com/@science.diver> | **Whatsapp Messenger:** 0040722824515 |

Whatsapp Messenger: 0036303872116 |

Address: Fibervar Llc. / dr. Peter HANTZ, Str. Bolintineanu Nr. 20, 400062, Cluj, Romania (Work)

Address: Work in Hungary, ELTE Szerves Kémiai Tanszék, Pázmány sétány 1/A, Budapest, Hungary (Work in Hungary)

● ABOUT ME

Research scientist specialising in food and environmental microbiology and environmental physics, with entrepreneurial activities in biomechanics. Committed to disseminating research results and translating scientific achievements into practical innovations. Affiliated with Eötvös Loránd University and leading an R&D company in Transylvania.

● WORK EXPERIENCE

CHIEF EXECUTIVE OFFICER – FIBERVAR LLC. – 30/04/2019 – Current – CLUJ, ROMANIA

Website: www.fibervar.com | **Link :** <https://www.youtube.com/watch?v=Dwp68nu3KxE&t=4s>

- Driving food innovations (<https://www.fibervar.com/molecular-gastronomy/>)
- Leading the ERGOVI project (www.ergovi.com)
- Research in environmental physics and microbiology (<https://www.fibervar.com/science>)

GUEST RESEARCHER – SINGAPORE INSTITUTE OF TECHNOLOGY (SIT) – 01/02/2026 – 02/03/2026

- Solid-state fermentation of malto spent grain
- Biotechnology practicals
- Lecturing on hydrogels

CHIEF SCIENTIFIC OFFICER – FOODINTECH LLC. – 01/09/2023 – 30/05/2025 – MATESZALKA, HUNGARY

Leading the Product Development Laboratory

VISITING SCIENTIST – EÖTVÖS LORÁND UNIVERSITY, DEPT. OF ORGANIC CHEMISTRY – 01/03/2020 – Current – BUDAPEST, HUNGARY

Research in environmental science
Teaching innovation management

BIOPHYSICS RESEARCHER – UNIVERSITY OF PÉCS, MEDICAL SCHOOL – PÉCS, HUNGARY

BIOPHYSICS RESEARCHER, POSTDOCTORAL FELLOW – FRIEDRICH MIESCHER INSTITUTE FOR BIOMEDICAL RESEARCH – BASEL, SWITZERLAND

Website: www.fmi.ch

RESEARCHER ON BIOLOGICAL PATTERN FORMATION, POSTDOCTORAL FELLOW – EUROPEAN MOLECULAR BIOLOGY LABORATORIES, HEIDELBERG – HEIDELBERG, GERMANY

Website: www.embl.de

VISITING SCIENTIST – UNIVERSITY OF OXFORD – OXFORD, UNITED KINGDOM

Website: <http://mrcanu.pharm.ox.ac.uk/>

PHYSICS LECTURER – BABEŞ-BOLYAI UNIVERSITY – CLUJ, ROMANIA

Website: <https://atom.ubbcluj.ro/mafi/>

● EDUCATION AND TRAINING

2006 Genève, Switzerland

PHD IN PHYSICS Université de Genève

Address École de Physique, 24 quai Ernest-Ansermet, 1211 Genève 4, Genève, Switzerland | **Website** www.unige.ch |

Field of study Natural sciences, mathematics and statistics | **Final grade** Summa cum Laude | **Level in EQF** EQF level 8 |

Thesis Pattern formation in a new class of precipitation reactions

Links <https://www.unige.ch/campus/numeros/87/theses/> | <http://hantz.web.elte.hu/cikkfile/hantzth.pdf>

1998 Budapest, Hungary

MSC IN PHYSICS (STATISTICAL PHYSICS AND BIOPHYSICS) Eötvös Loránd University, Institute of Physics

Website <https://physics.elte.hu/en/> | **Final grade** Summa cum Laude | **Level in EQF** EQF level 7

1992 Cluj, Romania

HIGH-SCHOOL GRADUATION Báthory István Líceum

Website <https://bathory-kolozsvar.ro/> | **Level in EQF** EQF level 4

2019 Barcelona, Spain

EIT HEALTH INJOY SUMMER SCHOOL European Institute of Innovation and Technology / University of Barcelona

2016 Lausanne, Switzerland

LABVIEW CORE I. EPFL

2010 Heidelberg, Germany

BSAC SD SCUBA DIVER European Molecular Biology Laboratory SubAqua Club

2009 Woods Hole MA, United States

MBL WOODS HOLE NEURAL SYSTEMS AND BEHAVIOR SUMMER SCHOOL Marine Biological Laboratory, Woods Hole MA, USA

Website www.mbl.edu

2008 Plymouth, United Kingdom

MBL PLYMOUTH MICROELECTRODE TECHNIQUES FOR CELL PHYSIOLOGY SUMMER SCHOOL Marine Biological Association, UK

Website <https://www.mba.ac.uk/>

2005 Heidelberg, Germany

EMBO/EMBL PRACTICAL COURSE ON METHODS IN CELL BIOLOGY EMBO and EMBL

2004 St. Etienne de Tinee, France

PHYSBIO 2004 (NON-EQUILIBRIUM IN PHYSICS AND IN BIOLOGY) SUMMER SCHOOL EWORK-PHYSBIO

2004 Cluj, Romania

POST-GRADUATE PEDAGOGY MODULE Babeş-Bolyai University

2003 Dunakeszi, Hungary

C-GRADE GLIDER PILOT MALEV Aero Club

Website <http://malev-ato.hu/>

2000 Hungary

PADI OW SCUBA DIVER Galathea Diving Centre

● LANGUAGE SKILLS

Mother tongue(s): **HUNGARIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C2	C1	C1	C1
ROMANIAN	C1	C2	C1	C1	C1
GERMAN	B1	B1	B1	B2	A2
FRENCH	A1	A2	A1	A1	A1
RUSSIAN	A1	A1	A1	A1	

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● SKILLS

Food Science | Solid-state fermentation | Hydrogels | Modeling and simulation | Knowledge of several bioinformatics tools | General Bioinformatics Applications | Research diving | HTML | Linux | Matlab, C, Python, R

● HONOURS AND AWARDS

2020

EIT Food Seedbed Grant, 2020 – European Institute of Innovation and Technology

8000 EUR for market establishment.

2019

EIT Food Jumpstarter Competition, 3rd prize, 2019 – European Institute of Innovation and Technology

5000 EUR for our startup company.

Link <https://www.eitfood.eu/news/post/eit-jumpstarter-winners-2019>

2019

COSME WORTH Grant, 2019 – COSME

10000 EUR for building the prototype of a radically new ergonomic chair.

2018

Diaspora Startup Grant, 2018 – POCU Romania

40000 EUR for building a production laboratory for an innovative, upcycling food supplement based on molecular gastronomy research.

Link <https://diasporaungaria.ro/hu/hantz-peter/>

2010

FMI/SNF Postdoctoral Fellowship – FMI / SNF

2009

Grass fellowship – MBL Woods Hole, MA, USA

2007

FEBS Long-term Postdoctoral Fellowship – Federation of European Biochemical Societies

● **PUBLICATIONS**

2024

Bubble ascent and rupture in mud volcanoes

M. L. Rudolph, K. Ch. Sahu, N. Savva, ... , F. L. Forray, M. Manga, and P. Hantz

2023

[The Bear Lake through the Eyes of a Research Diver \(Open-Air Exhibition\)](#)

2022

[Der Bärensee in Siebenbürgen Bezaubernde Halokline, gemusterte Biofilme](#)

The Bear Lake in Transylvania:
wonderful halocline, patterned biofilms

BIUZ

2021

[Facile isolation of sporopollenin exine from bee pollen](#)

Nature Scientific Reports

Link <https://www.nature.com/articles/s41598-021-87619-8>

2021

[Life around dormant volcanoes \(in Hungarian\)](#)

Popular science

GEO Hungary

Link <http://hantz.web.elte.hu/cikkfile/geo.pdf>

2021

[Secrets of the Red Lake \(in Romanian\)](#)

National Geographic Romania

2000

[Pattern formation in the NaOH+CuCl₂ reaction](#)

J. Phys. Chem. B

2020

[A Neglected Area: Methodological Preparedness of European University Teachers \(in Hungarian\)](#)

The translation of this article was published in 2021 in the Romanian language, in the periodical of the Romanian Academy of Sciences.

German and French translations are in progress.

Magyar Tudomány

2020

[Analyzing the Motion of Symmetric Tops Without Recurring to Analytical Mechanics](#)

Frontiers in Physics

2019

[When the pseudoscience bites with the teeth of the science \(in Hungarian\)](#)

Természet Világa

2019

[Precession Intuitively Explained](#)

Frontiers in Physics

2019

[Targeting neuronal and glial cell types with synthetic promoter AAVs in mice, non-human primates, and humans](#)

Nature Neuroscience

2018

[How Diverse Retinal Functions Arise from Feedback at the First Visual Synapse](#)

Neuron

2017

[Interactive Light Stimulus Generation with High Performance Real-time Image Processing and Simple Scripting](#)

Frontiers in Neuroinformatics

2017

[Large Band-Edge Photocurrent Peak in Thick Methylammonium Lead Iodide Photosensors with Symmetric Metal Electrode](#)

ACS Photonics

2017

[Whole-organism cellular gene-expression atlas reveals conserved cell types in the ventral nerve cord of *Platynereis dumerilii*](#)

PNAS

2014

[Efficient transduction and optogenetic stimulation of retinal bipolar cells by a synthetic adeno-associated virus capsid and promoter](#)

EMBO Molecular Medicine

2012

Recording from Defined Populations of Retinal Ganglion Cells Using a High-Density CMOS-Integrated Microelectrode Array with Real-Time Switchable Electrode Selection

Journal of Neuroscience Methods

2006

Phase Separation in the Wake of Moving Fronts: Experiments and Simulations

Physical Review Letters

2004

Ion-Selective Membranes Involved in Pattern-Forming Processes

J. Phys. Chem. B.

2004

Voronoi Diagrams Generated by Regressing Edges of Precipitation Fronts

J. Chem. Phys.

2002

Germing Surfaces in Reaction-Diffusion Systems? - Experiments and a Hypothesis

J. Chem. Phys.

2002

Regular microscopic patterns produced by simple reaction-diffusion systems

Phys. Chem. - Chem. Phys.

● **DRIVING LICENCE**

Driving Licence: B

| 2020 – 2031

● **CONFERENCES AND SEMINARS**

2019 – 2021 online / Warsaw, Poland

European Institute of Innovation and Technology - Food, Seedbed Seminars

2019 online / Vienna, Austria

European Institute of Innovation and Technology - Manufacturing, Ideation Connection Day

2017 Heidelberg, Germany

The Human Microbiome (European Molecular Biology Laboratories)

2015 Reutlingen, Germany

10th International Meeting on Microelectrode Arrays

2006 Naples, Italy

Marine Genomics Europe Network Summer School

2003 Palma de Mallorca, Spain

Dynamics Days 2004

2001 Oxford, United Kingdom

Gordon Research Conference on Oscillations and Dynamic Instabilities in Chemical Systems

2000 Mt. Holyoke, USA

Gordon Research Conference on Nonlinear Science

● **MANAGEMENT AND LEADERSHIP SKILLS**

Leading a startup company (2019-)

Our startup company has 3 regular and 3 external employees. We have deals with about a dozen of commercial and scientific collaboration partners.

Link www.fibervar.com

Managing research teams (2014-)

Successfully coordinated several groups of scientists; our works resulted in peer-reviewed or popular science publications.

Leading a group working on a pattern-forming reaction, and managing two teams investigating environmental microbiology problems.

Leading an NGO standing for minority rights in education (2004-2012)

Hungarian Student Union of Cluj-Kolozsvár-Klausenburg, President (1992)

Union of Hungarian High-school Students in Transylvania, President (1990-1992)
