

Curriculum vitae: Hana Jungová, PhD.

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WORK EXPERIENCE

2020.02 – present **Researcher**, Dept. of Physics and Astronomy (former Dpt. Of Physics), Chalmers University of Technology, Gothenburg, Sweden

2016.01 – 2020.02 **Postdoctoral Fellow**, Dept. of Physics, Chalmers University of Technology, Gothenburg, Sweden; Principal investigator: Prof. Mikael Käll.

2014.11 – 2016.01 **Postdoctoral Fellow**, Institute of Photonics and Electronics ASCR, v.v.i. Prague, Czech Republic;

2004 – 2014 **Research Assistant**, Institute of Photonics and Electronics ASCR, v.v.i. Prague, Czech Republic;

EDUCATIONAL QUALIFICATIONS

2008 – 2014 **Ph.D in Biophysics, Chemical and Macromolecular Physics**
Faculty of Mathematics and Physics, Charles University in Prague, Czech Republic
Dissertation: Study of Biomolecular Interactions with Surface Plasmon Resonance Biosensors

2006 – 2008 **MSc. in Biophysics, Chemical and Macromolecular Physics**
Faculty of Mathematics and Physics, Charles University in Prague, Czech Republic

2003 – 2006 **BSc. in General Physics**
Faculty of Mathematics and Physics, Charles University in Prague, Czech Republic

RESEARCH GRANTS

2026-2030 *Swedish research council (VR) "Controlling Flow with Light" (Co-PI)*

2025 Grant for Young Researchers from [Hasselblad foundation](#) (PI)

2025 Research grant from [PAR Foundation](#) to Prevent Antibiotic Resistance (PI)

2024-2027 *Swedish research council (VR) grant for young researchers: 4 MSEK. "NanoTrack: Tracking cellular nanomotions with optically controlled rotary nanomotors". (PI)*

2024 *Seed project Nano Area of Advance: "Shining Light on the Hidden Moves: Nanoscale Probing of Bacterial Activity" (Co-PI)*

2023-2026 *GENIE funding. Strategic funding by the Chalmers University of Technology Foundation.*

2020-2024 *Swedish research Council (VR) grant "Optothermal Marangoni convection and sensing at the nanoscale" (Co-PI)*

SUPERVISION EXPERIENCE

Supervised and co-supervised 1 postdoctoral researcher, 4 PhD students, 4 master thesis students. Participated in 3 PhD defenses as grading committee member

TEACHING EXPERIENCE

2023-2025 **Advances in bioimaging for next generation drug delivery** (7.5 ECTS)

“[Tracks](#)” course at Chalmers for Master, PhD. Students and alumni. Tracks courses offer interdisciplinary and individualized studies between the existing programmes.

Role: Course design, lecturer, co-examiner. Approx. 10 students

2023-2025 **Biological and biotechnical physics** (7.5 ECTS)

Dept. Physics, master’s program, Chalmers.

Role: Teacher. Approx. 20 students

PEDAGOGICAL COURSES

2022 **Diploma in Teaching and Learning in Higher Education** at Chalmers. The diploma complies with the [SUHF recommendations from 2016](#) for employment as academic teacher.

Completed courses (In total 15 ECTS credits):

University Teaching and Learning (2.5 ECTS credits)

Diversity and Inclusion for Learning in Higher Education (2.0 ECTS credits)

Blended Learning in Higher Education (2.5 ECTS credits)

Theoretical Perspectives on Learning (2.5 ECTS)

Enhancing Learning Through Writing (5 ECTS credits)

Reflections on Teaching and Learning in Higher Education (0,5 ECTS credits, 2022)

Course on student supervision:

2021 *Supervising research students* (3 ECTS credits), Chalmers

Leadership training:

2024 *Inclusive and Outstanding Research Environments program* at Chalmers University (March-December 2024, 7 full days). Program supports the creation of excellent and inclusive research environments.

2023 *Inclusive Leadership Course* (12 hours, 2023). Organized by Chalmers as career support for future inclusive leaders

INVITED CONFERENCE PRESENTATIONS

Photorefractive Optics and Beyond 2024 (PR24) 2nd-5th July, 2024, San Lorenzo de El Escorial, Spain. Title of the talk: “Applications of light-driven nanomotors and deflecting metagratings in sensing and microscopy”

Optics & Photonics in Sweden 2022 (OPS) 4th-7th October, 2022, Umeå, Sweden Title of the talk: “Plasmonically-powered trapping and rotation of gold nanorods for single-cell biology”

PIE Optics and Photonics 2020, San Diego, USA (declined due to advanced pregnancy)

Women in Photonics. Jena, Germany. April 18-19, 2018. Title of the talk: “Probing of biomolecular films with single gold nanomotors”

OUTREACH ACTIVITIES

2025 [Science festival](#), “[Conversation: From nanoparticles to Arctic landscapes](#)”

2021 [AHA! Festival](#), Contributed with exposition and presentation of optical illusions “Do we see with the eyes, or the brain?”

2004-2010 Member of executive board of Prague Division of Czech Astronomical Society ([PP CAS](#))

2006-2010 Editor-in-chief of [Corona Pragensis](#), monthly bulletin of PP CAS.

2001-2008 Guide at Štefánik astronomical observatory, Prague, Czech Republic.

ACADEMIC CITIZENSHIP

Chalmers University of Technology, Department of Physics and Astronomy

2025- present **Equality Representative**

Development and implementation of departmental equality policies and action plan. Contributing to strategic initiatives promoting equitable working conditions and inclusive research environments.

2021- present **Member, Committee for PhD thesis award**

Evaluating doctoral theses for departmental distinction. The award highlights exemplary research, promotes role models for current PhD students, and includes nomination of one thesis for a Swedish national competition.

2025 **Faculty representative, Physics Equality Group**

Representing departmental staff in equality and inclusion matters

2025 **Organizer** of 7th Annual Conference of the Nordic Network for Diversity in Physics ([NORNDiP](#) 2025).

Beyond Chalmers:

- Mentor in Charles University (Czech Republic). Mentoring Programme for Early-Career Researchers – Postdocs (2026).
- Reviewer for funding agencies: Swedish Research Council (2026), Dutch Research Council (2025), German Research Foundation DFG (2024, 2019), ERC Consolidator grants (2023), The Finnish Research Impact Foundation (2023,2025).
- Reviewer for scientific journals (approx. 3 per year): Nature Communications, ACS Nano, ACS Sensors, Biosensor and Bioelectronics, Scientific Reports etc.
- Moderator of Consensus meetings, Call 2.1 of European program „European centers of excellence “, Ministry of Education, Youth and Sports of the Czech Republic, 2014
- Member of Local organizing committee of conference „[Europtrode](#) X“, Prague, Czech Republic, 2010.

AWARDS

- *Bolzano Award in Natural Sciences* – awarded by Charles University for exceptional doctoral thesis in Natural Sciences defended or published during last academic year (2016).

PATENTS

Strandberg, E.; Juodenas, M.; [Šípová-Jungová, H.](#); Käll, M. “A compact optical device for detecting and/or measuring particle or biomolecular interactions and a method for manufacturing such”, Swedish Patent PCT/SE2025/050560, filed 2025 (pending).