

## Curriculum Vitae

**Ing. Miroslav Janák**



**Date of birth:** 01. 02. 1990  
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**Nationality:** Slovak  
**Mother Tongue:** Slovak

### Education:

- 2015 – PRESENT DAY PhD student in Biotechnology, Institute of Biotechnology, Faculty of Chemical and Food Technology, Slovak University of Technology, Bratislava, Slovakia
- 2012-2015 Ing. student in Biotechnology, Institute of Biotechnology, Faculty of Chemical and Food Technology, Slovak University of Technology Bratislava, Slovakia
- 2008-2012 Bc. student in Biotechnology, Institute of Biotechnology, Faculty of Chemical and Food Technology, Slovak University of Technology Bratislava, Slovakia

### Academical work:

- PhD. Thesis: Study of scale-up conditions in solid-state fermentations for production of functional bioproducts. Supervisor: doc. Ing. Milan Čertík, PhD. (Institute of Biotechnology, , Faculty of Chemical and Food Technology, Slovak University of Technology Bratislava, Slovakia)
- Ing. Thesis: Fermentative production of intermediates for chemical synthesis, Supervisor: doc. Ing. Martin Rebroš, PhD. (Institute of Biotechnology, , Faculty of Chemical and Food Technology, Slovak University of Technology Bratislava, Slovakia)
- Bc. Thesis: Anaerobic production of metabolites from renewable sources Supervisor: doc. Ing. Martin Rebroš, PhD. (Institute of Biotechnology, , Faculty of Chemical and Food Technology, Slovak University of Technology Bratislava, Slovakia)

### Internships and traineeships:

- **2019** (3 months): Erasmus+ Traineeship program, Division of Genetics, Cell & Developmental Biology, Department of Biology, University of Patras, Patras, Greece.
- **2014** (1 semester): Erasmus Socrates program, study at Department of Biotechnology, University of Ljubljana, Ljubljana, Slovenia.
- **2013** (1 month): Professional Internship in industrial company (Quality control department), LentiCats a.s., Brno, Czech Republic.
- **2011** (1 month): Anglo-German Institute: intensive German language course

### **Pacipitation in EU/National projects:**

- VEGA: Project title: „Biotechnological processing of waste fats and oils.“, 2019-2021
- APVV: Project title: „Redesign of oleaginous microbial metabolism for biotechnological preparation of industrially attractive oils.“ 2018-2022
- „Lipofungi“ No. 268305: Project title: „Bioconversion of low-cost fat materials into high-value PUFA-Carotenoid biomass.“ 2017-2019
- VEGA: Project Title: „Solid State fermentations as tool for biotechnological preparation of bioproducts enriched with biologically active compounds“ 2015-2017

### **Conferences:**

- **Janak M.**, Dourou M., Certik M., Aggelis G. (2019): Valorisation of pomegranate residue by solid-state fermentation with *Cunninghamella echinulate*, XXVIII Tomasek Days of young microbiologists, Conference (Oral presentation), 6.-7. June 2019, Brno, Czech Republic.
- Certik M, Klempova T., Slany O., **Janak M.**, Marcincak S. (2018): Biotechnological preparation of functional cereal-based food and feed, 7<sup>th</sup> Meeting on Chemistry & Life, International Conference, 12.-14. September, Brno, Czech Republic.
- **Janak M.**, Vrablova V., Marova I., Shapaval V., Certik M. (2018): Effect of waste fat addition on production of  $\gamma$ -linolenic acid by fungal solid-state fermentation, XXVII Tomasek Days of young microbiologists, International Conference (Oral presentation), 7.-8. June 2018, Brno, Czech Republic.
- Certik M., Klempova T., Slany O., **Janak M.** (2018): Biotechnological evaluation of raw cereal materials into functional cereal-derived bioproducts enriched with lipophilic bioactive compounds, International Conference on Raw materials to processed foods, 11-13 April 2018, Antalya, Turkey.
- **Janak M.**, Klempova T., Gajdos P., Certik (2017): Production of  $\gamma$ -linoleic acid by solid-state fermentations using filamentous fungi *Cunninghamella echinulate*, XXVI Tomasek Days of young microbiologists, International Conference (Oral presentation), 8.-9. June 2017, Brno, Czech Republic.
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### **Skills:**

#### **Laboratory Skills:**

- Microbial cultures: preparation of liquid and solid media for microorganism cultivation (yeasts, bacteria, fungi), preparation of microorganism cultivations in flasks, plastic bags (in case of solid-state fermentations), bioreactors for submerged and solid-state fermentations.
- Classical Microbiology Techniques: Gram (+) and Gram (-) staining. Observation of microorganism morphology by optic microscope.
- Specialized Microbiology Techniques: Biomass determination, extraction of intracellular and extracellular total lipids from microbial cultures (FOLSH, Soxhlet), purification of lipids, Acyl-esterification of lipids. enzymatic activity determination, proteins, phenolic compounds and saccharides determination.
- Analytical Techniques: High Performance Liquid Chromatography (HPLC). Gas Chromatography (GC). Tin-Layer Chromatography (TLC)

#### **Foreign languages(s):**

- English: Upper intermediate
- Czech: Upper intermediate
- German: Beginner
- Hungarian: Basics

#### **Computer Skills:**

- Microsoft office Specialist Master, Golden Software GRAFER

**Driving License:**

- SK. B

**Hobbies:**

- Sports: tennis, basketball, volleyball, martial arts (Taekwondo), Fishing
- Others: aquaristics, home beer production