

PREETHI RAVIKUMAR

Personal Information



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Education

Sept '19 -Present	Ph.D. in Chemical and Environmental Technology, Kaunas Technological University, Kaunas, Lithuania
Aug '16- June '18	MSc Molecular biology and Biotechnology, Vytautas Magnus University, Kaunas, Lithuania
Oct '17 – March '18	Erasmus exchange student, Philips University, Marburg, Germany
Sept '12 – June '16	B-Tech Biotechnology, Anna University, Tamilnadu, India

Practical Experience

April 2022- Present	Research intern in Alchemia Nova, Vienna, Austria <ul style="list-style-type: none">▪ Assistance in different tasks related to EU / national projects.▪ Potential assistance in writing of EU / international proposal.▪ Daily assistance in the laboratory
Sept '19 - Present	Ph.D. in Design and Engineering of Cell-on-Particle Concept for the Testing of Cytotoxicity of Ambient Aerosol <ul style="list-style-type: none">▪ Development of polymeric nano/micro composite fibrous membrane for sampling aerosol particles using solvent and melt electrospinning.▪ Data analysis of membrane filtration properties using ELPI+ and cell growth properties.▪ 1st public inventor in patent application submitted to “European patent”.
Dec '17- Jan 2018	Charite Medical University, Berlin (Germany). Internship on Role of C-type lectins in Legionella pneumonia on mouse macrophages. Isolation of bone marrow macrophages from mice. <ul style="list-style-type: none">▪ Performed cell culture and bacterial cultures experiments including bacterial growth curves using OD and CFU read outs.▪ Carried out infection experiments, RNA isolation, qPCR, and immunofluorescence staining.▪ Basic animal science course on laboratory animals' mice/rats (FELESA B certification).
June '17- Sept '17 & Jan '18- June '18	University of Basque Country, San Sebastian (Spain) Internship on Elaboration and characterization of cellulose acetate based composite film with chitin nanocrystal. <ul style="list-style-type: none">▪ Prepared chitin nanocrystal and determined the concentration of chitin nanocrystal.▪ Preparation of cellulose acetate integrated with 0.5, 1, 2% chitin nanocrystal films.▪ Carried out the physio-chemical analysis of cellulose acetate with and without chitin nanocrystal and performed data analysis of samples.

- Determined biodegradability of composite films.
- Determined antibacterial and antifungal properties of composite films.

Jan 2017- March 2017

Aksaray University, Aksaray (Turkey)

Internship on Production and characterization of chitosan based edible films using *berberis crataegina*'s fruit extract and seed oil.

- Preparation of chitosan based edible film using *berberis crataegina*'s fruit extract and seed oil.
- The produced films were characterized using SEM, ATR/FT-IR, and DSC.

Oct '15 – March'16

National Institute for Research in Tuberculosis, (India)

Intern on Cloning, Expression and Purification of Rv1294 from mycobacterium tuberculosis

- Performed cloning, expression, and purification of Rv1294 from *mycobacterium tuberculosis* in the lab.
- Performed isolation of gene of interest, amplification of the gene by PCR, restriction digestion of vector, ligation, and transformation into bacteria (DH5 α).
- Screening of positive clone by colony PCR, vector PCR, insert release.
- Purification of protein by affinity chromatography.

Publications

- S.Suresh , S.Savitha and R.Preethi: Beneficial Applications of Nanoparticles in Medical Field – A Review, International Journal of Pharma Tech Research, Sept-Oct 2014, Vol.6, No.5, pp 1712-1717.
- MuratKaya, PreethiRavikumar, SedefIlk, MuhammadMujtaba, LalehanAkyuz, JalelLabidi, AsierM.Salaberria, Yavuz S.Cakmak and SeherKaramanErkul: Production and characterization of chitosan based edible film using *berberis crataegina*'s fruit extract and seed oil -Innovative Food Science and Emerging Technologies, Volume 45, February 2018, Pages 287-297.
- Ravikumar, P., & Sagadevan, S. (2021). Influence of the addition of chitin nanocrystals on the characteristics of cellulose acetate films. *Polimery*, 66(2), 98-104.
- Edvinas Krugly¹, Preethi Ravikumar¹, Lauryna Dabašinskaitė¹, Martynas Tichonovas¹, Darius Ciuzas¹, Tadas Prasauskas¹, Odeta Baniukaitienė², Goda Masionė^{1,3}, Violeta Kaunelienė¹, Dainius Martuzevičius¹ Nanofibrous aerosol sampling filter substrates: design, fabrication, and characterization, *Journal of Aerosol Science*- Accepted

Conferences

- Presented E-poster entitled as "Electro spun Nano fibrous Membranes for Sampling of Fine Fraction of Particulate Matter "on 1st November 2020 in Indoor Air 2020, Seoul, Korea
- On October 2020, Presented in virtual exhibition TECHNORAMA 2020 on "Nano fibrous airborne particle sampling membrane"
- Oral presentation on "Production and characterization of chitosan based edible films using *berberis crataegina*'s fruit extract and seed oil in International Conference at Vytautas Magnus University, Lithuania, 2017.

Skills

- Hands on experience on forming nano/micro sampling media through electrospinning and performed filtration efficiency of filters using ELPI+.
- Proficient in molecular biology techniques; including cloning, protein purification using affinity chromatography, bacterial transformation, Agarose gel electrophoresis, SDS-PAGE, DNA/RNA isolation from cells as well as animal tissues, colony PCR and qPCR, RT-qPCR.

References

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