

Jesu Delihtha Liyaa Fernando

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Nationality: Indian

Date of Birth: 07.06.1991

15807, Graan voor visch,
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The Netherlands

Education

August 2014

Masters

Degree: M.Sc. Biomedical engineering (Specialization: Biomaterials)

University: TU Delft, The Netherlands

CGPA: 8/10

March 2012

Bachelors

Degree: B.Tech. Biomedical engineering

University: Sathyabama University, India

GPA: 8.4/10

Areas of Interest

Surface modification and characterization of biomaterials, characterization of cells interaction to biomaterials, tissue engineering for regenerative applications and cell biology

Relevant classes

- Biomaterials
- Practical course on characterization of biomaterials
- Tissue biomechanics of bone, cartilage and tendons
- Tissue engineering
- Orthopaedic implants and technology
- Computational mechanics of tissues and cells

Projects

- Master thesis project "Surface-cell interactions: Can PEO topography outsmart surface calcium?" at TU Delft and Erasmus Medical Center, The Netherlands, February 2014-August 2014.
- Internship project "Optimization of protocols to characterize pre-osteoblasts response to PEO treated titanium surfaces" at Erasmus medical Center, The Netherlands, October 2013-December 2013.
- Biomaterials mini research project "*In vitro* evaluation of Mg-Zn-Zr alloys as biodegradable materials for orthopaedic applications" at TU Delft, The Netherlands, April 2013.
- Bachelor project "A New Telemedicine System for the home monitoring of patients with respiratory disorders" at IIHT, Madurai, India, December 2011- April 2012.

Technical skills

- Cell-culture and biochemistry assays for DNA, protein, ALP and calcium quantification.
- FACS analysis of proliferative markers
- Histological assays (DAPI, Phalloidine-Rhodamine and Alizarin Red) and Fluorescent microscopy
- Surface modification of biomaterials: Plasma Electrolytic Oxidation (PEO)
- Biomaterials surface characterization: porosity, roughness, surface energy.
- *In vitro* biodegradation characterization: biodegradability and electrochemical behaviour
- Biomechanical properties: hardness, compression, tension and Young's modulus
- Excellent knowledge in MS Office package
- Statistics and basic knowledge in Matlab

Awards

- 5th topper in Biomedical department of Sathyabama University, India
- Secured subject topper award in Human anatomy and physiology, bio-telemetry and engineering physics at Sathyabama University, India

Additional language skills

- Completed Level A1 in Diplome D'étude en langue Française at Alliance Française, with grade of 87/100.

Interests

- Reading scientific journals: Biomaterials and Nature
- Learning new languages
- Travelling
- Cooking, especially Asian food
- Reading books

References

Referee 1

Prof. J.P.T.M van Leeuwen

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Referee 2

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Referee 3

Dr. Marjolein van Driel

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