

Personal information

First name, Surname:	Lise Lyngsnes, Randeberg		
Date of birth:	26.02.1974	Sex:	F
Nationality:	Norwegian		
Researcher unique identifiers	ORCID: 0000-0003-2608-3759, ResearcherID: G-8664-2019		
URL for personal website:	https://www.ntnu.edu/employees/lise.randeberg		

Education

Year	Faculty/department - University/institution - Country
2005 (02.06.2005)	Ph.D.: "Diagnostic applications of reflectance spectroscopy". Faculty of Information Technology, Mathematics and Electrical Engineering / Department of Physical Electronics – Norwegian University of Science and Technology (NTNU) – Norway.
1999	Master: Master of Technology/Sivilingeniør, Faculty of Physics, Informatics and Mathematics / Department of Physics – NTNU – Norway

Positions - current and previous

Year	Job title - Employer - Country
2011 –	Professor of Biomedical optics and photonics – Faculty of Information Technology and Electrical Engineering, Department of Electronic Systems, Norwegian University of Science and Technology (NTNU) – Norway
2009 – 2011	Associate Professor of Biomedical optics and photonics – Faculty of Informatics, Mathematics and Electrical engineering, Department of Electronics and Telecommunication, NTNU – Norway
2006 – 2009	Postdoc, Biomedical Optics (personal grant from the Norwegian Research Council) – Faculty of Informatics, Mathematics and Electrical engineering, Department of Electronics and Telecommunication, NTNU – Norway
2005 – 2006	Researcher, Biomedical Optics – Faculty of Informatics, Mathematics and Electrical engineering, Department of Electronics and Telecommunication, NTNU – Norway
1999 – 2005	Research Fellow, Biomedical Optics – Faculty of Informatics, Mathematics and Electrical engineering, Department of Physical Electronics, NTNU – Norway
2020 –	Scientific advisor and shareholder – Nordiq Products AS, Trondheim – Norway
2015 –	Scientific advisor, co-founder and board member – Picterus AS, Trondheim – Norway. (Smart phone-based diagnostics of neonatal jaundice, https://picterus.com)
2014 –	Board member – Akademikerne (deputy leader from 2016 –).
2013 – 2021	President – The Norwegian Society of Graduate Technical and Scientific Professionals - Tekna – Norway
2011 – 2013	Vice president – The Norwegian Society of Graduate Technical and Scientific Professionals - Tekna – Norway
2013 –	Board member (chairman 2018-2019, and 2021 –) – Norwegian Technical Weekly, Oslo – Norway (TU Media AS)
2009 – 2011	Visiting Associate Professor of Dermatology/Visiting Researcher – Wellman Center for Photomedicine/Massachusetts General Hospital/Harvard Medical School, Boston, MA –

	USA. Due to small children most of the time was spent working remotely from Norway. However, I held the position for 2 years.
2007 – 2009	Member of Board of directors, NTNU, Norway

Career breaks

Year	Reason
2017 – 2021	70% leave of absence from NTNU to be the President of the Norwegian Society of Graduate Technical and Scientific Professionals (Tekna), Oslo, Norway
2013 – 2017	50% leave of absence from NTNU to be the President of the Norwegian Society of Graduate Technical and Scientific Professionals (Tekna), Oslo, Norway
2002 – 2003	Maternity leave

Project management experience

Year	Project owner - Project - Role - Funder
2017 – 2019	NTNU – Lucid: a device for early, sensitive and reliable arthritis diagnosis and monitoring – PI – FORNY Norwegian Research Council.
2017 – 2019	NTNU – OxyAid: Automated oxygen dosage for COPD patients under treatment with long term oxygen therapy (LTOT) – WP leader optical sensor development – FORNY Norwegian Research Council.
2013 – 2016	Fraunhofer Institute, Germany – IACOBUS (http://www.iacobus-fp7.eu): Development of a hyperspectral hand scanner for early detection of arthritis – PI at NTNU, WP leader data analysis – EU 7th framework program.
2013 – 2016	CNR, Pisa, Italy – Semeoticons (http://www.semeoticons.eu): Development of WizeMirror, a mirror equipped with sensors and systems for self-monitoring of cardio-metabolic health – PI at NTNU, WP leader algorithm development for in vivo detection of skin cholesterol from multispectral images – EU 7th framework program
2006 – 2009	NTNU – Optical and mechanical characterization of tissue with an emphasis on forensic applications, Personal postdoc scholarship – PI – Project no. 171276. Norwegian Research Council (FRINAT)
2006 – 2007	NTNU – Bruises in children – PI – American Society for Laser Surgery and Medicine 2006 Research Grant

Supervision of students

Master students	Ph.D. students	University/institution - Country
30	8	Norwegian University of Science and Technology, Trondheim, Norway

Other relevant professional experiences

Year	Description - Role
2020	Tenure track evaluation committee, University of Twente, The Netherlands
2020 and 2018	Member of expert evaluation committee of applicants to a position as associate professor in digital electronics at Østfold Univ. College, Faculty of Engineering, Norway.
2009 – 2020	Member of 8 PhD evaluation committees at NTNU, University of Lund (Sweden), University of Linköping (Sweden) and University of Ljubljana (Slovenia) .

2017	Evaluation for promotion from Assistant Researcher, Step IV, to Researcher, Step I, Beckman Laser Institute, Department of Surgery at the University of California, Irvine
2017 – 2019	Subsea Valley Advisory Board member. Subsea Valley is a technology cluster and Norwegian Centre of Expertise (NCE) in energy technology, with 200 members. It is Norway's largest cluster and employs 31000 highly skilled professionals.
2017 – 2018	Digital 21 board member and expert group member. Digital 21 was set up by the Norwegian Ministry of Trade, Industry and Fisheries.
2006 – 2009	Network leader of Biomedical optics network, NTNU Strategic area med. tech., Norway
2017	Expert evaluation committee for promotion to full professor in biomedical engineering, Oslo and Akershus University College, Oslo, Norway
2012 –	Expert witness on skin bruises in child abuse cases in the Norwegian court system.
2015 – 2017	Grant evaluator. Cancer Research UK
2002 – 2020	Reviewer for scientific journals: Sensors, Laser Surg Med, J Biomed Opt, J Appl Phys, J Photoch Photobio, Med Biol Eng Comp, Opt Express, Appl Optics, J Biophotonics, IEEE T Info Technol B, J Eur Acad Dermatol, Nature Communications, Scientific reports
2009 – 2020	<ul style="list-style-type: none"> - Scientific committee member, Imaging and Applied Optics, Imaging Systems and Applications (IS), Optical Society of America, 2013 and 2016 – 2019 - Scientific committee member, Preclinical and clinical optical diagnostics, European Conferences on Biomedical Optics (ECBO), 2019 - Scientific committee member, Clinical and Biomedical Spectroscopy, European Conferences on Biomedical Optics (ECBO), 2009, 2011, 2013, 2015 and 2017 - Scientific committee member, Photonics in Dermatology and Plastic Surgery, BIOS, Photonics West, 2014 – 2021 - Scientific committee member for session on forensics, Discussion leader, session "Shining light on forensics", Gordon research conference on Lasers in Medicine and Biology, July 2018, Bates College, Lewiston, USA

Track record

- In total 82 published articles (listed in Publons), 9 the last 2 years, more than 50 talks at conferences and seminars last 5 years, 4 patent applications, and more than 50 popular science talks, radio interviews, debates and panel discussions last 2 years. Participation in popular science TV/radio shows on national TV (Newton, Schrödingers katt, Ekko). More than 1500 media appearances in total.
- **10 publications from the last 10 years**
 1. A Bjorgan, BS Pukstad, LL Randeberg, Hyperspectral characterization of re-epithelialization in an in vitro wound model, Journal of biophotonics 13 (10), 2020
 2. A Aune, G Vartdal, H Bergseng, LL Randeberg, E Darj, Bilirubin estimates from smartphone images of newborn infants' skin correlated highly to serum bilirubin levels, Acta Paediatr, 2020 Apr 8. doi: 10.1111/apa.15287.
 3. E Catelli, LL Randeberg, BK Alsberg, KF Gebremariam, S Bracci, An explorative chemometric approach applied to hyperspectral images for the study of illuminated manuscripts, Spectrochim Acta A, 177,69-78, 2017
 4. P Henriquez, BJ Matuszewski, Y Andreu-Cabedo, L Bastiani, S Colantonio, G Coppini, M D'Acunto, R Favilla, D Germanese, D Giorgi, P Marraccini, M Martinelli, M-A Morales, MA Pascali, M Righi, O Salvetti, M Larsson, T Stromberg, L Randeberg, A Bjorgan, G Giannakakis, M Pediaditis, F Chiarugi, E Christinaki, K Marias, M Tsiknakis, Mirror mirror on the wall... An unobtrusive intelligent multisensory mirror for well-being status self-assessment and visualization, IEEE T Multimedia, 2017, DOI: 10.1109/TMM.2017.2666545
 5. A Bjorgan, LL Randeberg, Real-time noise removal for line-scanning hyperspectral devices using a minimum noise fraction-based approach, Sensors, 15(2), 2015

6. A Bjorgan, M Milanić, LL Randeberg, Estimation of skin optical parameters for real-time hyperspectral imaging applications, *J Biomed Opt*, 19(6), 2014
 7. M Denstedt, A Bjorgan, M Milanić, LL Randeberg, Wavelet based feature extraction and visualization in hyperspectral tissue characterization, *Biomed Opt Express* Vol. 5 (12), 2014
 8. M Denstedt, BS Pukstad, LA Paluchowski, JE Hernandez-Palacios, LL Randeberg, Hyperspectral imaging as a diagnostic tool for chronic skin ulcers, *Proc SPIE*, Vol. 8565A, 2013
 9. LL Randeberg, J Hernandez-Palacios, Hyperspectral imaging of bruises in the SWIR spectral region, *Proc SPIE*, Vol. 8207, 2012
 10. ELP Larsen, LL Randeberg, E Olstad, OA Haugen, A Aksnes, LO Svaasand, Hyperspectral imaging of atherosclerotic plaques in vitro, *J Biomed Opt*, 16(2), 2011
- **Book chapters:**
 1. LL Randeberg, B Skallerud, NEI Langlois, OA Haugen, LO Svaasand, The optics of bruising, In: *Optical Response of Laser-Irradiated Tissue (Lasers, Photonics, and Electro-Optics)*, 2nd edition, Editors: AJ Welch, MJC van Gemert, Springer Verlag, 2011
 2. LL Randeberg, JE Hernandez-Palacios, E Catelli, SWIR Hyperspectral Imaging for Biomedical Applications, in *Short-Wavelength Infrared Windows for Biomedical Applications*, SPIE, In press 2021
 - **Granted patent(s):** G Vartdal, LL Randeberg, A Aune, A Kringstad, Image based bilirubin determination, 22.12.2015, WO2017111606A1
 - **Invited presentations to peer-reviewed national or international conferences and/or international advanced schools.**
 1. LL Randeberg, Hyperspectral characterization of tissue in the SWIR spectral range: a road to new insight?, *SPIE Photonics West BIOS: Optical Biopsy XVII: Toward Real-Time Spectroscopic Imaging and Diagnosis*, San Francisco, Feb. 2019
 2. LL Randeberg, How can hyperspectral imaging be used as a tool for bio-imaging? 30th International SAOT workshop, Erlangen, Germany, 30. Nov. 2018
 3. LL Randeberg, Hyperspectral imaging as a diagnostic tool, Harvard-MIT Health Sciences and Technology Summer Institute on biomedical optics, Boston, USA, 5. July 2018 (Invited lecture)
 4. LL Randeberg, Hyperspectral imaging of arthritis, Wellman lecture, Wellman center for photomedicine, Harvard University/Mass. General Hospital, Boston, USA, 3. July 2018
 5. LL Randeberg, Hyperspectral imaging – a flexible tool for tissue characterization, Formal seminar at the Cavendish Laboratory, University of Cambridge, UK, 13. Nov. 2015
 6. LL Randeberg, Hva betyr disiplin for min forskning, og hvordan har jeg lært det?, Olympiatoppens prestasjonskonferanse, 23. – 24. Sept. 2015
 7. LL Randeberg, How do optical properties affect light transport in tissue, and which parameters do you need to care about in the lab?, *Dev. in Optics and Communications*, Riga, Latvia, 2015
 8. LL Randeberg, Optical characterization and analytic modeling of bruised skin – taking physics into the courtroom, *Fysikdagarna*, Stockholm, Sverige, 9. – 11. Oct. 2014
 9. LL Randeberg, Hyperspectral imaging a flexible and powerful tool for tissue imaging, LAMMP seminar series, Beckman Laser Institute, University of Irvine, CA, USA, 2. Oct. 2014.
 10. LL Randeberg, M Denstedt, L Paluchowski, A Knutsen, BS Pukstad, Characterization of wounds and chronic skin ulcers using hyperspectral imaging and 3D surface profiling, *SCIX 2014*, Reno, Nevada, USA, 28. Sept. – 3. Oct. 2014
 - **Fellowships, awards and prizes:**
 - 2020 – Member of the Royal Norwegian Society of Sciences and Letters
 - 2019 Accelerator grant, Horizon 2020, (Picterus AS, 17 MNOK)
 - 2017 Winner, Angle Challenge Oslo, Oslo, Norway (Picterus AS, 1 MNOK)
 - 2015 DNB Healthcare Awards (Picterus AS, 1 MNOK)
 - 2014 – Member of the Norwegian Academy of Technical Sciences (NTVA)
 - 2014 Claude Rimington's memorial award, Norwegian Soc. of Photobiol. & Photomed.

- 2007 Technoport Awards: Young innovator Award (100 000 NOK)
- 2006 American Society for Laser Surgery and Medicine \$15.000 Research Grant