

Curriculum Vitae

Brief biography

S.C.G. Leeuwenburgh (Sander) was born July 22nd, 1977 in Gouda (The Netherlands). He studied Materials Science and Engineering at the Delft University of Technology and graduated at the Laboratory of Inorganic Chemistry (Head: Prof. J. Schoonman) in 2001 (cum laude, top 10%). From April 2001 until December 2005 he performed a part-time PhD research project (0.6 fte) at the Department of Periodontology and Biomaterials (Head: Prof. J.A. Jansen) of the Radboud University Nijmegen Medical Center. During his PhD project, he also studied piano at the Conservatory of Music in Arnhem, where he graduated in June 2005 (cum laude, top 5%).

From January until April 2006, he was visiting scholar at the Department of Bioengineering at Rice University (Houston, USA). In November 2006, Sander Leeuwenburgh defended his PhD thesis entitled "Electrosprayed calcium phosphate coatings for biomedical purposes" (cum laude, top 5%). Thereafter, he continued his scientific career as a postdoc until March 2008, when he was awarded a Young Investigator Award (VENI) from the Netherlands Organisation for Scientific Research (NWO) and was appointed as assistant professor at the Department of Biomaterials. In the framework of his VENI fellowship, he was visiting scholar at the Department of Biomaterials at Kyoto University Medical Hospital (Kyoto, Japan) from August 2009 until January 2010. In June 2015 he was appointed as associate professor after obtaining a prestigious NWO-VIDI award that enabled him to start his research group on nanostructured biomaterials. Since June 2016 he is Principal Investigator at the Radboud University Medical Center. In April 2018 he was appointed as full professor Regenerative Biomaterials at Radboud University Medical Center. In February 2020 he received the most prestigious personal grant in the Netherlands (NWO-VICI) to strengthen his research line on regeneration of diseased bone using colloidal biomaterials.

His research group creates novel biomaterial-based therapies for regeneration of hard tissues. Overall, his main aim is to decipher which physicochemical properties of biomaterials are able to trigger the natural self-healing capacity of hard tissues. This research philosophy is highly translational and aims to bridge the gap between basic and clinical sciences. To this end, a wide range of nano- and microstructured biomaterials are synthesized and evaluated (pre-) clinically including injectable and biodegradable hydrogels and cements, colloidal and self-healing composites, barrier membranes and coatings, as well as organic or inorganic nanoparticles. He published more than 160 peer-reviewed scientific papers and has an h-index of 35 (Web of Science) or 42 (Google Scholar).

Personal details

First name, surname	Sander Cornelis Gerardus (Sander) Leeuwenburgh
Title	Prof. Dr.
Gender	Male
Date of birth	22 July 1977
Place of birth	Gouda, The Netherlands
Nationality	Dutch
Marital status	Married
Current address	Pater Brugmanstraat 69, 6522 EK Nijmegen, The Netherlands
Office address	Radboud University Medical Center Department of Dentistry Philips van Leydenlaan 25, 6525 EX Nijmegen, The Netherlands Phone: +31 (0)6 15409006 Email: sander.leeuwenburgh@Radboud University Medical Center.nl

Professional experience

- April 2018 - present: full professor at the Department of Dentistry (Regenerative Biomaterials), Radboud University Medical Center, Nijmegen, the Netherlands.
- January 2018 - present: Research Associate at Institute of Science & Technology for Ceramics of the National Research Council (CNR-ISTEC), Faenza, Italy
- June 2015 - Mar 2018: associate professor at the Department of Dentistry (Biomaterials), Radboud University Medical Center, Nijmegen, the Netherlands.
- June 2011 - May 2015: assistant professor (tenured) at the Department of Dentistry (Biomaterials), Radboud University Medical Center, Nijmegen, the Netherlands.
- March 2008 - May 2011: assistant professor (fixed term) at the Department of Dentistry (Biomaterials), Radboud University Medical Center, Nijmegen, the Netherlands.
- September 2006 - February 2008: postdoc (fixed term) at the Department of Dentistry (Periodontology & Biomaterials), Radboud University Medical Center, Nijmegen, The Netherlands.

Education

- Ph.D. degree: Medical Sciences, April 2001 - November 2006 (0.6 fte), Radboud University Medical Center, Nijmegen, The Netherlands (**cum laude: top 5%**).
PhD thesis title: "Electrosprayed calcium phosphate coatings for biomedical purposes"
PhD thesis supervisors: Prof. Dr. John Jansen and Prof. Dr. Joop Schoonman
- M.Sc. degree: Piano, September 2001 - June 2005, Conservatory of Music, Arnhem, The Netherlands (**cum laude, top 5%**).
- M.Sc. degree: Materials Science and Engineering, September 1995 - April 2001, Delft University of Technology, Delft, The Netherlands (**cum laude: top 5%**).

International experience

- August 2009 - January 2010: Visiting scholarship at the Department of Biomaterials (Head: Prof. Y. Tabata), Kyoto University Medical Hospital, Kyoto, Japan.
- January 2006 - April 2006: Visiting scholarship at the Department of Bioengineering (Head: Prof. A.G. Mikos), Rice University, Houston, Texas, USA.
- April and July 2004: Internships at the Particle Technology Laboratory of the Department of Process Engineering (Head: Prof. S.E. Pratsinis), ETH Zürich, Zürich, Switzerland.
- March 1999 - October 1999: internship at the Department of Biocompatible Materials and Engineering (Head: Prof. E. Wintermantel), ETH Zürich, Zürich, Switzerland.

Committees

Committees of Trust

- October 2019 - present: Member Top Staff Committee (responsible for appointments of Associate Professors at Radboudumc)
- December 2018 - present: Member of Principal Investigator selection committee at Radboudumc
- November 2019 - present: Jury member for NWO-TTW VENI grant round 2020
- July 2018 - December 2019: Research Coordinator Department of Dentistry at Radboudumc
- July 2018 - December 2019: Board Member Management Team Department of Dentistry at Radboudumc
- May 2018 - present: Internal Advisory Board Member of Microscopic Imaging Center (MIC) at Radboud University Medical Center
- April 2018 - present: Member of Scientific Advisory Board of Access2Bone BV
- March 2017 - present: Member of Radboud University Medical Center Personal Grant Selection Committee
- June 2017 - February 2018: Member of the Transition Team (research representative) of the Department of Dentistry at Radboud University Medical Center. This Transition Team was responsible for the organizational transition of the Department of Dentistry between June 2017 and February 2018.
- January 2017 - July 2017: Jury member for NWO-STW VENI grant round 2017
- August 2016 - present: Member of Scientific Advisory Board of GATT Technologies BV
- January - July 2016: Jury member for NWO-STW VENI grant round 2016
- April 2015 - January 2016: Member of Committee Financing Research at Radboud University Medical Center
- September 2014 - April 2016: Member of Steering Committee theme "Reconstructive & Regenerative Medicine" at the Radboud University Medical Center
- December 2014 - present: Member of the Internal Advisory Board of the Radboud Institute for Molecular Life Sciences (RIMLS)
- July 2014 - December 2018: Faculty member of Radboud Nanomedicine Alliance
- June 2012 - December 2015: Treasurer of Netherlands Society for Biomaterials and Tissue Engineering (NBTE)
- January 2009 - June 2012: Dutch representative in Management Committee of European Cooperation in the field of Scientific and Technical Research (COST) Action MP0701: Composites with Novel Functional and Structural Properties by Nanoscale Materials (Nano Composite Materials-NCM)
- Staff member Department of Biomaterials, Department of Dentistry, Radboud University Medical Center (September 2006-present)advanced materials

PhD evaluation committees

- Jan 2020 - present: Member of PhD evaluation committee Paula de Almeida (Radboud University)
- May 2020 - present: President of PhD evaluation committee of Dion Voerman (Radboud University Medical Center)
- March 2020: Member of PhD evaluation committee of Lorenzo Degli Esposti (University of Parma)

- May 2019 - Jan 2020: President of PhD evaluation committee of Jorieke van der Weiden (Radboud University Medical Center)
- April 2019 - Oct 2019 President of PhD evaluation committee of Heinz Peter Janke (Radboud University Medical Center)
- January 2019 - Sep 2019: President of PhD evaluation committee of Bernadette Sterenborg (Radboud University Medical Center)
- January - April 2019: Member of PhD evaluation committee of Ariana Susa (Delft University of Technology)
- June 2018 - Dec 2018: President of PhD evaluation committee of Thom Bitter (Radboud University Medical Center)
- June 2018 - Dec 2018: President of PhD evaluation committee of Enas Mobarak (Radboud University Medical Center)
- December 2017-May 2018: Member of PhD evaluation committee of Didem Mumcuoglu (Erasmus Medical Center, Rotterdam)
- October 2017-December 2017: Member of PhD evaluation committee of Luis Delgado (National University of Ireland Galway, Galway, Ireland)
- June 2017 - January 2018: Member of PhD evaluation committee of Maarten Bakker (Eindhoven University of Technology)
- December 2016 - March 2017: Member of PhD evaluation committee of Alessandra Curci (University Bari, Italy)
- November 2016 - April 2017: Member of PhD evaluation committee of Michiel Pot (Radboud University Medical Center)
- September - December 2017: Member of PhD evaluation committee of Tony Ekkelenkamp (Twente University)
- June 2013 - September 2013: Member of PhD evaluation committee of Therese Andersen (NTNU - Trondheim, Norwegian Institute of Science and Technology)
- June 2011 - September 2011: Member of PhD evaluation committee of Magnus Olderøy (NTNU – Trondheim, Norwegian Institute of Science and Technology)

PhD defense committees

- July 2020: Member of PhD defense committee of Svenja Meddens (Radboud University Medical Center)
- July 2020: Member of PhD defense committee of Henan Zhan (Radboud University)
- March 2020: Member of PhD defense committee of Jing Xie (Radboud University)
- January 2020: Member of PhD defense committee of Giuliana Ascone (Radboud University Medical Center)
- November 2019: Member of PhD defense committee of Jan-Maarten van Doorn (Wageningen University)
- December 2018: Member of PhD defense committee of Xiaolin Zhang (Academic Medical Center Amsterdam)
- September 2018: Member of PhD defense committee of Daniel Schoenmakers (Radboud University)
- July 2018: Member of PhD defense committee of Timm Maske (Radboud University Medical Center)
- April 2017: Member of PhD defense committee of Gloria Belen Ramirez Rodriguez (University of Bologna, Italy)
- January 2017: Member of PhD defense committee of Marije Sloff (Radboud University Medical Center)
- January 2016: Member of PhD defense committee of Anika Jonker (Radboud University)
- August 2015: Member of PhD defense committee Peter Levett (Utrecht University)
- June 2015: Member of PhD defense committee Etienne van Bracht (Radboud University Medical Center)
- September 2014: Member of PhD defense committee Yi Sun (Radboud University Medical Center)

General memberships

- Netherlands Society for Biomaterials and Tissue Engineering (NBTE)
- European Society for Biomaterials (ESB)
- American Society for Biomaterials (SFB)
- Tissue Engineering & Regenerative Medicine International Society (TERMIS)

Scholarships, grants and prizes

- NWO TTW VICI grant ColBioBone (July 2020-June 2025): 1625 k€ (PI)
- NWO TTW OTP grant RNA4Bone (July 2019-June 2023): 581 k€ (PI)
- RIMLS Junior Researcher round 2019: 240 k€ (PI)
- Twente University Radboud University Medical Center Opportunities (TURBO) grant (September 2017-March 2018): 80 k€ (co-applicant)
- Nominated as best lecturer of the College of Dental Sciences (June 2017)
- NWO STW OTP grant 14435 Bone-Adhesive Membranes (BAM) (September 2016-August 2020): 750 k€ (co-applicant)

- Principal Investigator Premium 2016-2019 from the Radboud University Medical Center in recognition of scientific excellence (June 2016-present)
- Nominated as “Best Dutch Self Healing Materials Scientist” (2nd prize) (April 2015)
- RIMLS Junior Researcher round 2015 (June 2015-May 2019); 240 k€ (PI)
- NWO VIDI grant project number STW 13455 (October 2014-September 2019); 800 k€ (PI)
- Junior Principal Investigator Premium 2013-2016 from the Radboud University Medical Center in recognition of scientific excellence (July 2013-May 2016)
- LifeScienceHealth Match, NANOGEL (August-December 2013); 3.6 k€ (PI)
- Rousselot NV, Screening for nanosphere formation (February 2013-May 2013); 18 k€ (PI)
- IOP Agentschap NL, Self-Healing Materials project 012014 Healgel (September 2012-August 2016); 586 k€ (PI)
- FP7-PEOPLE-2011-IOF Grant 299949 PeptiDopaMin (April 2012-March 2014); 185 k€ (PI)
- IOP Agentschap NL, Self-Healing Materials project 01048 Calgel (May 2010-April 2014); 469 k€ (co-applicant)
- STW grant 10700, visiting scholarship at Kyoto University Medical Hospital (August 2009-December 2009); 8 k€ (PI)
- IOP SenterNovem Self-Healing Materials project number SHM 08717 (May 2009-April 2011); 203 k€ (PI)
- Travel grant COST Workshop MP0701 (March 2009); 800 € (PI)
- NWO VENI grant project number STW 08101 (March 2008-May 2011); 208 k€ (PI)
- Travel grant at 2nd Marie Curie Cutting Edge Conference, Alvor, Portugal, October 2006; 500 € (PI)
- STW grant 7390, visiting scholarship at Rice University (January-April 2006); 8 k€ (PI)
- Oral Presentation Award (2nd prize) at the Annual Meeting of the International Society for Ceramics in Medicine, Kyoto, Japan, December 2005 (PI)
- Elected for oral presentation at the Student Speech Contest of the European Ceramic Society (4th place), June 2005; 1 k€ (PI)
- Best Poster Award (1st prize) at the Annual Meeting of the Dutch Society for Biomaterials and Tissue Engineering (NBTE), December 2003; 100 € (PI)
- Research Award (Borghardt Award, 1st prize) from the "Dutch Society for Surface Technology of Materials" (VOM), June 2003; 1.6 k€ (PI)
- Research Award (1st prize) from the "Bataafsche Genootschap der Proefondervindelijke Wijsbegeerte", September 2002; 1 k€ (PI)
- Best MSc Student Award from the Faculty of Materials Science and Engineering, Delft University of Technology, April 2001. 1 k€ (PI)
- Essay award (1st prize) on “Healthcare” at National Essay Competition “Geen kopzorgen over morgen”, November 1998. 500 € (PI)

Selected scientific presentations at (inter)national conferences

- 47th National Conference on Inorganic Chemistry, Bari, 2019 (invited)
- Annual Symposium Res Metallica, Leuven, Belgium, 2019 (invited)
- 7th China-Europe Symposium on Biomaterials in Regenerative Medicine (CESB 2019), Guangzhou, China, 2019 (invited)
- Annual Meeting Nederlandse Vereniging voor Matrix Biologie, Luntenen, The Netherlands, 2019 (invited)
- Health Valley Event, Nijmegen, 2019 (invited)
- CPhI World Convention, Madrid, Spain, 2018 (invited)
- European Orthopedic Research Society (EORS), Galway, Ireland, 2018 (invited)
- International Symposium on Inorganic and Environmental Materials (ISIEM), Ghent, Belgium, 2018 (invited)
- Plenary lecture Annual Meeting of the German Society for Biomaterials, Würzburg, Germany, 2017 (invited)
- European Society for Biomaterials, Athens, Greece, 2017 (invited)
- International World Conference on Self Healing Materials, Friedrichshafen, Germany, 2017 (invited)
- International Conference on Tissue Engineering & Regenerative Biomedical Materials, Heraklion, Greece, 2017 (invited)
- International Conference on Modern Materials and Technologies (CIMTEC), Perugia, Italy, 2016 (invited)
- Annual Meeting on Self-Healing Materials (IOP-SHM meeting), Utrecht, The Netherlands, 2015 (invited)
- BioBone Symposium, Santiago de Compostela, Spain, 2015 (invited)
- International World Conference on Self Healing Materials, Durham, USA, 2015
- CRE@E/ICMS/NBTE Symposium, Eindhoven, The Netherlands, 2015 (invited)
- European Society for Biomaterials, Liverpool, UK, 2014
- Society for Biomaterials 2014 Annual Meeting, Denver, USA, 2014
- Materials in Medicine International Conference, Faenza, Italy, 2013 (invited)
- World Conference on Tissue Engineering and Regenerative Medicine (TERMIS), Vienna, Austria, 2012

- International Association for Dental Research, Helsinki, Finland, 2012 **(invited)**
- Netherlands Institute of Regenerative Medicine (NIRM) meeting, Utrecht, 2012 **(invited)**
- Dutch Federation of Biomedical Scientific Societies Federa, Symposium on Regenerative Medicine, Utrecht, 2012 **(invited)**
- European Society for Biomaterials, Dublin, Ireland, 2011 **(invited)**
- Society for Biomaterials 2011 Annual Meeting, Orlando, USA, 2011
- International Society for Ceramics in Medicine, Daegu, South-Korea, 2009
- International Symposium “Bionics, no more common senses”, UTwente, Enschede, June 2009 **(invited)**
- COST workshop MP0701, FP7, Valencia, Spain, March 2009 **(invited)**
- Third Tissue Engineering Conference, Rhodes, Greece, 2008
- World Biomaterials Congress 2008, Amsterdam, The Netherlands, 2008
- Society for Biomaterials 2007 Annual Meeting, Chicago, USA, 2007
- Annual Meeting of the Dutch Ceramic Society, Hoorn, The Netherlands, 2006 **(invited)**
- 2nd Marie Curie Cutting Edge Conference, Alvor, Portugal, 2006
- International Society for Ceramics in Medicine, Kyoto, Japan, 2005
- European Ceramic Society, Portoroz, Slovenia, 2005 **(invited)**
- Annual Meeting of the Dutch Ceramic Society, Ede, 2004 **(invited)**
- International Society for Ceramics in Medicine, New Orleans, USA, 2004
- International Symposium on Inorganic and Environmental Materials, Eindhoven, The Netherlands, 2004 **(invited)**
- International Society for Ceramics in Medicine, Porto, Portugal, 2003
- European Society for Biomaterials, Barcelona, Spain, 2002
- Cells and Materials meeting, Davos, Switzerland, 1999

Selected lectures at (inter)national research institutes

- Guangzhou Medical University (GMU), Guangzhou, China, 2019 **(invited)**
- Technical University of Denmark (DTU), Kopenhagen, The Netherlands, 2019 **(invited)**
- Utrecht University, Debye institute for Nanomaterials Science, Utrecht, The Netherlands, 2018 **(invited)**
- Dalian University of Technology, Department of Bioengineering, China, 2018 **(invited)**
- Guangxi Medical University Medical Center, College of Stomatology, China, 2018 **(invited)**
- Maastricht University, MERLN Institute for Technology-Inspired Regenerative Medicine, Department of Inorganic Biomaterials, The Netherlands, 2018 **(invited)**
- Institute of Science and Technology for Ceramics (ISTEC), Department of Bioceramics, Faenza, Italy, 2018 **(invited)**
- National University of Ireland Galway, Regenerative, Modular & Developmental Engineering Laboratory (REMODEL), Ireland, 2017 **(invited)**
- Münster University, Department of Analytical Chemistry, Germany, 2016 **(invited)**
- Würzburg University Hospital, Department of Functional Materials in Medicine and Dentistry, Germany, 2016 **(invited)**
- University of Erlangen, Department of Biomaterials, Erlangen, Germany, 2015 **(invited)**
- Harvard University, School of Engineering and Applied Sciences (SEAS), Boston, United States of America, 2014 **(invited)**
- Max Planck Institute (MPI), Department of Biomaterials, Potsdam, Germany, 2014 **(invited)**
- Institute of Science and Technology for Ceramics (ISTEC), Department of Bioceramics, Faenza, Italy, 2012 **(invited)**
- TA Instruments Annual Meeting on Rheological Characterization, Antwerp, Belgium, 2011 **(invited)**
- Sichuan University, Institute of Materials Science and Technology, Chengdu, China, 2010 **(invited)**
- ETH Zürich, Department of Materials, Zürich, Switzerland, June 2009 **(invited)**
- Gadjah Mada University, Faculty of Dentistry, Yogyakarta, Indonesia, 2007 **(invited)**
- Kyoto University, Department of Biomaterials at Institute for Frontier Medical Sciences, Kyoto, Japan, 2007 **(invited)**
- RIKEN Wako Institute, Materials Fabrication Laboratory, Tokyo, Japan, 2005 **(invited)**
- ETH Zurich 2004, Particle Technology Laboratory, Zürich, Switzerland, 2004 **(invited)**

Organization of conferences

- November 2018 - present: Member of scientific advisory board of the 6th World TERMIS Conference (31 May-4 June 2021, Maastricht, The Netherlands)
- December 2017 - September 2018: Organizer of Special Symposium “Biomaterials Based on Colloidal Building Blocks” at European Society for Biomaterials (9-13 September 2018, Maastricht, The Netherlands)
- December 2015 - September 2018: Member of scientific advisory board of the 28th Conference of the European Society for Biomaterials (9-13 September 2018, Maastricht, The Netherlands)

- October 2014 - June 2015: Session organizer at International Conference on Self Healing Materials (22-24 June 2015, Durham, USA)
- September 2015 - December 2015: Organizer of Annual Conference of the Netherlands Society for Biomaterials and Tissue Engineering (3-4 December 2015, Lunteren, The Netherlands)
- September 2014 - December 2014: Organizer of Annual Conference of the Netherlands Society for Biomaterials and Tissue Engineering (4-5 December 2014, Lunteren, The Netherlands)
- February 2013 - October 2014: Organizer of international two-day international conference “New Frontiers in Regenerative Medicine” (16-17 October 2014, Nijmegen, <http://www.rimls.nl/symposia/new-frontiers-2014/summary/>)
- September 2013 - December 2013: Organizer of Annual Conference of the Netherlands Society for Biomaterials and Tissue Engineering (28-29 November 2013, Lunteren, The Netherlands)
- February - October 2013: Organizer of REFORM symposium (22 October 2013 Nijmegen, The Netherlands)
- September 2012 - December 2012: Organizer of Annual Conference of the Netherlands Society for Biomaterials and Tissue Engineering (6-7 December 2012, Lunteren, The Netherlands)
- September 2006 - June 2008: Scientific Program Coordinator of the 8th World Biomaterials Congress in Amsterdam (28 May - 1 June 2008, Amsterdam)

Reviewing

- Regular reviewer for more than 35 scientific journals including Advanced Materials, Advanced Healthcare Materials, Advanced Functional Materials, Advanced Drug Delivery Reviews, Science Advances, Science, Nature Materials Reviews, Nature Biomedical Engineering, Journal of the American Chemical Society, ACS Nano, ACS Applied Materials & Interfaces, Tissue Engineering Part A and C, Acta Biomaterialia, Biomaterials, European Cells and Materials, Journal of Biomedical Materials Part A and B, Chemistry of Materials, Biomacromolecules, Journal of Controlled Release, Colloids and Surfaces, Nanoscale, Polymers, Thin Solid Films, European Polymer Journal, Journal of the Royal Interface Society, Journal of Inorganic Biochemistry, Journal of the European Ceramic Society, Carbohydrate Polymers, PLOS ONE, Surface and Coatings Technology, Atomization & Sprays, Drug Development and Industrial Pharmacy, Journal of Nanoparticle Research, Heliyon, Applied Surface Sciences, Journal of Materials Science, Journal of the Mechanical Behavior of Biomedical Materials, Journal of Materials Science: Polymer Edition, etc.
- Member of Principal Investigator evaluation committee (December 2018-present)
- Member of Editorial Board of the scientific journal “Advanced Materials Interfaces (Wiley)” (October 2018-present)
- Invited co-editor of special issue in Advanced Materials Interfaces on “Self-healing Materials” (September 2017-July 2018)
- Member of Editorial Board of the scientific journal “Applied Science (MDPI)” (September 2017-May 2019)
- Member of Editorial Board of the scientific journal “Heliyon (Elsevier)” (November 2016-present)
- Jury member NWO VENI committee 2017, January–July 2017
- Jury member NWO VENI committee 2016, January - July 2016
- Jury member RIMLS PhD thesis award 2016, January 2016
- Jury member for oral, poster and pitch presentation awards at the Radboud Institute for Molecular Life Sciences (RIMLS) PhD retreat, Veldhoven, May 2015
- Research proposal reviewer for the Dutch Technology Foundation NOW (Open Technology Platform OTP, 2015), the German Research Foundation (DFG, 2019), ReumaNederland (2019), the Irish Health Research Board (2015), the Czech Science Foundation (2015), European Research Council (ERC Advanced 2017)
- Invited co-Editor of special issue in Journal of Nanomaterials on “Nanostructured Bioceramics” (March 2013 - September 2013)
- Conference abstract reviewer for European Society for Biomaterials (ESB) Annual Meeting 2018 (Maastricht), 2017 (Athens), 2015 (Krakow), 2009 (Lausanne)
- Conference abstract reviewer for World Biomaterials Congress (WBC), Amsterdam, June 2008

Miscellaneous activities

- May 2017 - present: strategic collaborator of NWO-Zwaartekracht Program “Center for Materials-Driven Regeneration”
- September 2010 - present: Collaboration with Leiden-based company CAM Bioceramics aimed at clinical translation and commercialization of a resorbable injectable bone substitute developed at Radboud University Medical Center. These efforts have resulted into the initiation of a clinical trial at Radboud University Medical Center and a successful business deal related to the ceramic component of the resorbable cement between CAM Bioceramics and DSM Biomedical.

- December 2011 - July 2016: Collaboration with Nijmegen-based company Future Chemistry focusing on industrial upscaling of the production of gelatin nanospheres for biomedical applications. After a successful proof-of-principle as obtained by a PhD student from Radboud University Medical Center and a senior scientist of Future Chemistry, this novelty was patented (WO2015053629 (A1)) and a spin-off company “BioMed Elements” was founded in 2016 (<http://www.biomed-elements.com/>).
- October 2011 - February 2012: Consultancy at KplusV Management Consulting to study and stimulate public-private collaboration and socioeconomic value creation in the life sciences;
- March 2010 - December 2011: Initiator and coordinator of a social study (20 interviews and surveys performed in 2011) on the efficacy of public-private collaboration within the BioMedical Materials (BMM) program as largest public-private partnership within the Dutch field of regenerative medicine. The study was performed by Sander Leeuwenburgh and a team of investigators from management consultancies KplusV BV and Technopolis BV. The resulting policy report was written by Sander Leeuwenburgh between October and December 2011, commissioned by the BMM program and used by the BMM office for their midterm evaluation in 2012.
- October 1999 - March 2001: Student representative of the Ethics Committee at Delft University of Technology;
- October 2000 - January 2001: scientific internship at Isotis NV, Bilthoven, The Netherlands (Head: Prof. K. de Groot and Prof. C.A. van Blitterswijk).

Outreach

- regular speaker at informational meetings for e.g. Dentist & Operation Room assistants, the Dutch Ceramic Society, Central Animal Facility, Dutch Federation of Biomedical Scientific Societies, Health Valley Event, etc.
- My work has been featured in numerous popular-scientific journals, newspapers etc. including Chemisch2Weekblad (C2W), Artsenkrant, Omroep Gelderland, Omroep Max, Rijksdienst voor Ondernemend Nederland (RVO), De Gelderlander, Dutch Journal for Dentistry, MaterialsViews, Nanowerk, etc.

Educational activities

Qualifications

- Start qualification BKO (March 2013)
- Basis qualification BKO “Supervision research internships” (February 2014)
- Basis qualification BKO “Theoretical education” (July 2015)

Supervision:

- Acted as co-promotor for 15 PhD students (~4 years of supervision):
 - Lise de Jonge (RUMC, 2010)
Received an NWO Young Investigator Rubicon grant in 2009 for a scholarship at Imperial College, London, UK
 - Rosa Felix Lanao (RUMC, 2013)
 - Huanan Wang (RUMC, 2013)
 - Received “Best PhD Thesis Award” from the Dutch Society for Biomaterials and Tissue Engineering (NBTE) in 2013
 - Received an NWO Rubicon Young Investigator Rubicon grant in 2012 for a scholarship at Harvard/MIT, Boston, USA
 - Matilde Bongio (RUMC, 2013)
 - Arnold Nijhuis (RUMC, 2013)
 - Kemal Sariibrahimoglu (RUMC, 2014)
 - Ruggero Bosco (RUMC, 2014)
 - Jie An (RUMC, 2015)
 - Gosia Wlodarczyk-Biegun (WUR, 2016)
 - Jiankang Song (RUMC, 2016)
 - Kambiz Farbod (RUMC, 2016)
 - Hongbing Liao (RUMC, 2017)
 - Marcel Boerman (RU, 2017)
 - Mani Diba (RUMC, 2018, cum laude)
 - Received “Best RIMLS PhD Thesis Award 2018” from the Radboud Institute for Molecular Life Sciences (RIMLS) at Radboudumc”
 - Received “Stensen Fellowship” in 2018

- Sissie Vogelzang, MSc student Dentistry, RUMC (September 2014-August 2015)
- Rebecca Kirana, MSc student Dentistry, RUMC (with Tokyo Dental College) (April 2015-June 2016)
Awarded with “Best MSc thesis award Dentistry RUMC 2017”
- Suzanne Albers, MSc student Dentistry, RUMC (April 2015-June 2016)
- Loes Smolders, MSc student Dentistry, RUMC (March 2016-present)
- Sanne van Kooten, MSc student Dentistry, RUMC (March 2016-present)
- Mariateresa Brindisi, MSc student Chemistry, Materials & Engineering, Technical University Milano (October 2015-February 2016)
- Tomas Sobral Marques, MSc student Biomedical Engineering, Catholic University of Portugal, Porto, Portugal (September 2015-February 2016)
- Eri Shima, MSc student Chemistry, Sophia University, Tokyo, Japan (August-October 2016)
- Massouda Hamidi, MSc student Dentistry, RUMC (March 2017-present)
- Florentine Reijnen, MSc student Dentistry, RUMC (March 2017-present)
- Marianna Barbuto, MSc student Chemistry, Materials & Engineering, Technical University Milano (February 2017-May 2017)
- Simon Jacques, MSc student Biomedical Engineering, Université Paris Descartes, Paris, France (January 2017-July 2017)
- Cindy Yeung, MSc student Applied Sciences, Zuyd Hogeschool (November 2017-July 2018)
- Stijn Vooijs, MSc student Dentistry, RUMC (March 2018-June 2019)
- Marjolein de Ruijter, MSc student Dentistry, RUMC (March 2018-June 2019)
- Kenneth Rooyer, MSc student Dentistry, RUMC (March 2018- June 2019)
- Manon Peerlings, MSc student Dentistry, RUMC (March 2019-June 2020)
- Marleen Reijders, MSc student Dentistry, RUMC (March 2019-June 2020)
- Marrit Tholen, MSc student Biomedical Engineering, Technical University Eindhoven (May-August 2019)
- Marije Heitmeijer, MSc student Dentistry, RUMC (March 2020-present)
- Jens Rutjes, MSc student Dentistry, RUMC (March 2020-present)
- Chi Ngyuen, MSc student Chemistry, RU (November 2019-present)
- Xanne Ketelaar, MSc Biomedical Sciences, RUMC (April 2020-June 2020)

Lecturing:

- Self-healing Biomaterials (Radboud Annals of Medical Students, RUMC): 2018
- Nanomedicine (Medicine, RUMC): 2018, 2019, 2020
- Academic skills (Dentistry, RUMC, B2We1tA, B2We1tB, M2We1t, M3We1s): 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020
- Capita Selecta (Medicine, RUMC): 2011
- Capita: Medisch/technische vernieuwingen in de Tandheelkunde (Dentistry, RUMC, M2Ti1t): 2012, 2013, 2014, 2015, 2016, 2017
- Academic skills (Dentistry, RUMC, M1We1t): 2014
- Function and Function Recovery 2 (Dentistry, RUMC, B2Td3p): 2014, 2015, 2016, 2017, 2018, 2019, 2020
- Tooth restoration 1 (Dentistry, RUMC, B1Td1p); 2017, 2018
- Tooth restoration 2 (Dentistry, RUMC, B2Td1p): 2016, 2017, 2018, 2019, 2020
- Dental Materials (HAN University of Applied Sciences. RUMC): 2017, 2018, 2019, 2020

Contribution to curricula, course/curriculum development:

- Member Visitation Panel Biomedical Technology, Rijksuniversiteit Groningen (June 2018-Jan2019)
- Member Educational Curriculum Committee College of Dental Sciences, RUMC (September 2013-present)
- Coordinator MSc Course M2Ti1t “Capita: Medisch/technische vernieuwingen in de Tandheelkunde” (June 2012-August 2015)
- Vice-coordinator MSc Course M2Ti1t “Capita: Medisch/technische vernieuwingen in de Tandheelkunde” (September 2015-present)
- Advisor Radboud University Medical Center introductory course “In the lead” (January 2016, September 2016, February 2017)

Contribution to post-graduate teaching:

- Lecture on “Biomaterials in regenerative medicine” for PhD students at Dutch post-graduate education program on regenerative medicine (Groningen): 2010
- Organizer of workshop (within FP7-MultiTERM) on characterization of biomaterials: October 2010

- Organizer of four-day education course on “Materials and cell-matrix interactions” in the framework of the Dutch post-graduate education program on regenerative medicine (Berg en Dal): 2012
- Main organizer of workshop (within FP7-iTERM) on characterization of biomaterials: March 2014
- Lectures on “Bioceramics” for PhD students at post-graduate research program on regenerative medicine at the University of Utrecht: October 2010, October 2012, October 2014, October 2016
- Lecture on “Bone-substituting Biomaterials” for PhD students at post-graduate research program on regenerative medicine at the University of Utrecht: March 2018

Publications in international (peer-reviewed) journals

Number of publications: 163

Google Scholar: <https://scholar.google.nl/citations?user=7gULagkAAAAJ&hl=nl>
h-index: 42

Publons: <https://publons.com/researcher/2362599/scg-leeuwenburgh/>
h-index: 35

Books/contributions to books:

1. Nadar RA, van den Beucken JJJP, **Leeuwenburgh SCG**. Pharmacological interventions targeting bone diseases in conjunction with bone grafting. In: Dental Implants and Bone Grafts, Eds. Hamdan Alghamdi, John Jansen, Woodhead Publishing, 2020.
2. Liao H, Hoekstra JW, Wolke JGC, **Leeuwenburgh SC**, Jansen JA. Injectable calcium phosphate cements for the reconstruction of oral and craniomaxillofacial bone defects: clinical outcome and perspectives. In: Tissue Engineering and Regeneration - Organ specific approaches, Ed. Heinz Redl, Springer, 2016.
3. Kucko N, Jansen JA, Herber RP, **Leeuwenburgh SC**. Calcium phosphate ceramics and cements. In: Principles of Regenerative Medicine (3rd edition). Eds. Anthony Atala, Robert Lanza, Tony Mikos, Robert Nerem, Elsevier, 2017.
4. Douglas TEL, **Leeuwenburgh SC**. In: Self Healing Materials; pioneering research in the Netherlands, Ed. Sybrand van der Zwaag, Delft University Press, 2015.
5. Diba M, Wang H, **Leeuwenburgh SC**. Development of self healing gels based on reversible cohesive interaction between self-assembling organic and inorganic nanoparticles. In: Self Healing Materials; pioneering research in the Netherlands, Ed. Sybrand van der Zwaag, Delft University Press, 2015.
6. Mollet BB, Pape ACH, Felix Lanao RP, **Leeuwenburgh SC**, Dankers PYW. "Materiomics using synthetic materials: metals, cements, covalent polymers and supramolecular systems". In: Materiomics. High-throughput screening of biomaterial properties, Eds. Jan de Boer, Clemens van Blitterswijk, Cambridge University Press (2013).
7. Douglas TEL, Pamula E, **Leeuwenburgh SC**. "Biomimetic mineralization of hydrogel biomaterials for bone tissue engineering". In: Biomimetics: advancing nanobiomaterials and tissue engineering, Eds. Murugan Ramalingam, Xiumei Wang, Guoping Chen, Peter Ma, Fu-Zhai Cui, Scrivener Publishing (2013).
8. Sariibrahimoglu K, Wolke JGC, **Leeuwenburgh SC**, Jansen JA. "Calcium phosphates". In: Tissue Engineering: Principles and Practices, Eds. John Fisher, Antonios Mikos, Joseph Bronzino, Donald Peterson, CRC Press (2012).
9. Wang H, **Leeuwenburgh SC**, Li Y, Jansen JA. "Micro- and nanospheres for tissue engineering". In: Micro- and nanotechnologies for engineering stem cells and tissues, Eds. Murugan Ramalingam, Esmail Jabbari, Seeram Ramakrishna, Ali Khademhosseini, Wiley & Sons (2012).
10. Lopez-Heredia M, **Leeuwenburgh SC**, Layrolle P, Jansen JA. "Two injectable calcium phosphate cements, two approaches: a review". In: Bioceramics: Properties, Preparation and Applications, Ed. Frank Columbus, Nova Publishers (2008).
11. **Leeuwenburgh SC**, Wolke JGC, Jansen JA, de Groot K. "Calcium phosphate coatings". In: Handbook of Bioceramics and their applications, Ed. Tadashi Kokubo, CRC Press (2008).
12. **Leeuwenburgh SC**, Wolke JGC, Siebers MC, Schoonman J, Jansen JA. "Electrosprayed calcium phosphate coatings for biomedical purposes". In: Thin calcium phosphate coatings for medical implants, Eds. Betty Leon, John Jansen, Springer (2008).
13. **Leeuwenburgh SC**. Electrosprayed calcium phosphate coatings for biomedical purposes. PhD Thesis (2006).

Patents and patent applications:

1. Sanchez-Fernandez MJ, Felix Lanao RP, Opsteen J, Bender JCME, van Hest JCM, Leeuwenburgh SCG. Polyoxazoline copolymer comprising calcium binding groups. EP19189100
2. Nadar RA, Margiotta N, Codee K, Boerman O, Leeuwenburgh SCG. Platinum isotope combined with targeting ligands for use in anticancer drugs. EP19192324
3. Polini A, Petre DG, Leeuwenburgh SCG. Calcium-binding fibers for bone cement. EP16165794.
4. Felix Lanao RP, Leeuwenburgh SCG, Wolke JGC, Jansen JA. Injectable calcium phosphate cement comprising glucono-delta-lactone. WO2013077739.
5. Douglas TEL, Leeuwenburgh SCG, Jansen JA, Skwarczynska A, Modrzejewska Z. Chitosan-based hydrogels containing enzyme alkaline phosphatase. WO2013015688.
6. Jansen JA, Schoonman J, Leeuwenburgh SCG, Wolke JGC, Electrostatic spray deposition (ESD) of biocompatible coatings on metallic substrates. US2004241613.

Feature articles in popular-scientific online journals:

1. "Zelfhelend kunstbot van nanodeeltjes". Published at <http://www.c2w.nl/nieuws/zelfhelend-kunstbot-van-nanodeeltjes/item18749>
2. "Nanogel". Published at Rijksdienst voor Ondernemend Nederland (RVO): www.rvo.nl/subsidies-regelingen/projecten/nanogel (2015)
3. "Taai en sterk cement." Published at <http://www.regeneratievegeneeskunde.nl/nieuws/24-dubbele-vernieuwingsimpuls-voor-nirmonderzoek.html> (2014)
4. "6 wetenschappers Radboud in de prijzen." Published in De Gelderlander: <http://www.gelderlander.nl/regio/nijmegen-e-o/nijmegen/6-wetenschappers-radboud-in-de-prijzen-1.4366972> (2014)
5. "Promotie A.W.G. Nijhuis". Published in Nederlands Tijdschrift voor Tandheelkunde: <http://www.ntvt.nl/nieuws/promotie-a-w-g-nijhuis> (2013)
6. "Materials in Medicine: A Jelly Scaffold for Tissue Regrowth." Published at www.materialsviews.com (2011)
7. "Injectable, biodegradable gels made from gelatin nanospheres aid tissue repair." Published at www.nanowerk.com (2011)
8. "X-ray diffraction in biomedical research - Chemical and biological analysis of bioceramic calcium phosphate coatings for medical purposes", Application Note PANalytical BV, Published at www.panalytical.com/Application-notes (2007)

Signature:



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Nijmegen, June 11th 2020