1. **Full name and date**
   - Massera Jonathan
   - Male
   - CV written September 09th , 2018
2. **Date and place of birth, nationality, current residence**
   - 11 May 1981, Saint Martin d'Hères, France
   - Citizenship: FRENCH
   - Current residence: Vistinkatu 1A, 37120 Nokia, Finland
3. **Education and degrees awarded**
   - **Doctor of Philosophy:** Clemson University, SC, USA
     Major: Materials Science and Engineering
     PhD advisor: Prof. Kathleen Richardson
     PhD Title: "Nucleation and growth behavior of tellurite-based glass suitable for mid-infrared applications"
     Graduation: December 2009
   - **Master of Science:** Double Degree between Polytech'Montpellier, Montpellier, France and Politecnico di Torino, Turin, Italy.
     Major: Materials Science and Engineering
     MSc advisors: Profs. Monica Ferraris and Kathleen Richardson
     MSc. title: "Formation/Dissolution of metallic nanoparticles in Thin SiO_2 films"
     Graduation: June 2006
4. **Linguistic skills**
   - Mother tongue: French
   - Fluent (C2): Italian and English
   - Basic (A2): Finnish and Swedish
5. **Current position**
   - **Sept.2017-present:** Director of the MSc degree in programme in Biomedical Sciences and Engineering
   - June 2017- Present: Associate Professor (Tenure Track) and Academy Research Fellow appointed by the Academy of Finland (2014-2019), Tampere University of Technology, Faculty of Biomedical Sciences and Engineering, Biomaterials and Tissue Engineering Group.
   - **Sept 2014- June 2017:** Assistant Professor (Tenure Track) and Academy Research Fellow appointed by the Academy of Finland (2014-2019), Tampere University of Technology, Department of Electronics and Communication Engineering, Biomaterials and Tissue Engineering Group.
   - **Research career phase**: 3) Established or independent researcher
   - **Grant:** Academy Research Fellow appointed by the Academy of Finland (2014-2019).
6. **Previous work experience**
   - **Jan. 11-Aug. 14:** Senior researcher, Post-Doctoral Researcher appointed by the Academy of Finland, at Åbo Akademi, Finland.
   - **Jan. 10- Dec. 10:** Post doctorate at Åbo Akademi, Finland
   - **Sept. 06 – Dec. 09** Teaching assistant at Clemson University, SC/USA
7. **Research funding as well as leadership and supervision**
   - **2018**

TUT programme for internationalization	1 year	7000€

   - **2017**

International Commission on Glass (ICG)	1 year	2500€
Mobility programme between TC04 members		

Follow-on Funding for Research Cost 2 years 139994€
"OPTIBIO" OPTIcally- and BIO-active glass fibers to track and support tissue healing"

- **2016**

Tampere Univeristy of Technology Foundation 4 years 120000€
PhD Grant for Inari Lyyra
Tampere University of Technology Foundation 2 years 88000€
Post-Doc grant
Jane and Aatos Erkko Foundation 4 years 390000€
"AGATE: bioActive Glass scAffold for Tissue Engineering"
Academy of Finland: Mobility Grant to Germany 2 years 14400€
nLIGHT 6 months 4500€
"Er^{3+}-$ALPO_4$ nanoparticles doped glasses"

- **2015**

nLIGHT 6 months 4500€
"Er^{3+}-$ALPO_4$ nanoparticles synthesis"

- **2014**

Academy of Finland Academy Research Fellow 5 years 434485€
"OPTIBIO" OPTIcally- and BIO-active glass fibers to track and support tissue healing"
Initial Funding for Research Cost 3 years 209765€
"OPTIBIO" OPTIcally- and BIO-active glass fibers to track and support tissue healing"

- **2013**

nLIGHT 6 months 3500€
"Er^{3+}-Al_2O_3 doped borosilicate glasses"

- **2012**

nLIGHT 6 months 3500€
"Nanoparticles formation in glasses for optical application"

- **2011**

Academy of Finland Postdoctoral Researcher 3 years 283600€
"Optical Fibers with bioactive surface"
Åbo Akademi foundation
Stiftelsens för Åbo Akademi forskningsinstitut 2011 1 year 21600€

- **2010**

Johan Gadolin 1 year 24000€
Post doctoral scholarship 2010

Supervision experience

- ***Post Doctoral***

Sari Vanhatupa: "Bioactive glass / human adipose stem cells interaction" 2017-2018
Amy Nommeots-Nomm: "Bioactive glass scaffolds manufactured via 3D printing", 2016-2017
Mizhang Xiao: co-supervised with Dr. Leena Hupa, 2011.

- ***Doctoral Student***

Karolin Lukasik: 3D printing of hybrid biomaterials, (started 09.2018, co-supervision with Prof. M. Kellomäki)
Amel Houaoui: polymer/bioactive glass hybrids for tissue regeneration (started 09.2017, co-supervision with Dr. M. Boissière and Prof. E. Pauthe at University Cergy Pontoise, France)
Inari Lyyra: Composites for urethra and trachea applications (started 01.2017, co-supervision with Prof. M. Kellomäki)
Jenna Tainio: Borosilicate scaffolds for Tissue Engineering (started 01.2017)
Ayush Mishra: Phosphate bioactive fibers for medical applications, (started 03.2015)

- ***Masters students***

Hongfei Liu: Student from Tampere University of Technology, Borosilicate scaffolds in vitro dissolution in static and dynamic condition and cell behavior, started April 2018
Mari Saarinen: Student from Tampere University of Technology, Sr, Li and B- containing bioactive glass: Dissolution and In-vitro cell activity, started May 2018
Jacopo Barberi: Student from Politecnico do Torino, Italy: amorphous glass scaffold with graded porosity, co-supervision with Prof. Enrica Verné and Francesco Baino, 2017
Juuso Pohjola: Student from Tampere University of Technology: Scaffold processing from Sr and Mg containing bioactive borosilicate glasses, 2017
Marta Martelossi: Student from Politecnico do Torino, Italy: Antioxidant effect of bioactive glasses, co-supervision with Prof. Enrica Verné, 2017.
Ngoc Bao Huynh: Student from Tampere University of Technology, "Protein grafting at the surface of bioactive glasses", start Mar. 2017
Amel Houaoui: Student from Cergy University, France, "PLA/bioactive glass composites: Dissolution and Cellular behavior", Co supervision with Dr. Michel Boissière, 2017
Katri Leino: Student from Tampere University of Technology, "PLA/bioactive glass composites: chemical modification during dissolution, Co supervision with Prof. Minna Kellomäki and Dr. Terttu Hukka, 2017.
Viivi Jokinen: Student from Tampere University of Technology, "Mechanical testing of biomaterials: challenge and limitations", 2017
Tomi Antilla: Student from Tampere University of Technology, "Sintering of Mg and Sr containing bioactive glass", Start Jan. 17
Hamasa Mohammad Hashem: Student from Tampere University of Technology (6 months), "Chitosan/bioactive glass composite: hydrolytic resistance and mechanical properties" 2017
Jenna Tainio: Student from Tampere University of Technology (6 months), "Sintering of borosilicate bioactive glasses", 2016
Srijana Ghimire: Student from Tampere University of Technology (6 months), "PLA/bioactive glass composite: hydrolytic resistance and mechanical properties", 2016
Erika Erasmus: Student from Witwatersrand University, Johannesburg, co-supervised with Prof. Iakovos Sigalas, "Sintering of borosilicate glasses using porogenic agent", Started January 2015
Nirajan Ohja: Student from Tampere University of Technology (6 months), "Borosilicate glass scaffolds for tissue engineering", 2016
Sergi Roca Puertas: Erasmus student Universidad Politécnica de Madrid / Tampere University of Technology (6 months): " Phosphate bioactive glass fibers drawn from melt", 2016
Edoardo Buffa: student from Politecnico di Torino (6 months): "borosilicate glass fucntionnalization for protein grafting", 2016
Aida Khayyami: student from Tampere University of Technology (8 months): "Low temperature sol-gel on polymeric substrate", 2015
Fantine Sabatier: student from Polytech'Montpellier (4 months): "Phosphate based glasses and fiber doped with boron: effect on bioactivity and cell proliferation", 2014
Maude Gaussiran: student from Polytech'Montpellier (4 months), co-supervised with Dr. Laeticia Petit (nLIGHT): "Phosphate based glass doped with particles showing persistent luminescence", 2014
Cecilia Gestraud: student from Bordeaux University (3 months), co-supervised with Dr. Laeticia Petit (nLIGHT) and Thierry Cardinal (ICMCB Bordeaux): "YAG and Er^{3+}-Al2O3 nanoparticles doping in phosphate-based glasses", 2014
Morgane Vassallo-Breillot: student from Polytech'Montpellier (4 months): Effect of Cerium doping on the physical, thermal, structural, optical and bioactive properties of phosphate glasses, 2013.
Marielle Mayran: student from Polytech'Montpellier (4 months): Crystallization mechanism of phosphate-based glasses and its impact on bioactivity, 2013
Benjamin Sevrette: student from Bordeaux University (4 months): "Impact of crystallization on the Er-luminescence of new borosilicate glasses doped with La, Ce, Ca and Sr", 2012.

Corinne Claireaux: student from Rennes University (3 months): "Effect of Na_2O/B_2O_3 ratio on the glass thermal, physical and structural properties and its impact on glass bioactivity", 2010.

- ***Undergraduate students***

Marc Labbé: Undergraduate student from Rennes University (3 months), Ag-decorated bioactive glass discs and fibers, 2018

Tuulia Jokela: Undergraduate student from Tampere University of Technology, dissolution of borosilicate glasses in TRIS and SBF solutions, started May 2018.

Mikko Hongisto: Undergraduate student from Tampere University of Technology, "3D printing and sintering of clear glass for biophotonics", 2017

Henriikka Teittinen: Undergraduate student from Tampere University of Technology, "PL containing borosilicate scaffolds", 2017

Romain Laurent: Undergraduate student from Rennes University (3 months), "Mechanical properties of Ag doped phosphate fibers" 2017

Céline Neukomm: Undergraduate student from Rennes University (3 months), "Crystallization of Cu-doped phosphate glasses and their draw-ability into fiber", 2016

Maeva Fabert: Undergraduate student from Rennes University (3 months), "Crystallization of borosilicate and borate glasses", 2015

Anna Iisa: Undergraduate student from University of Colorado Boulder (3 months): Effect of CaO substitution for SrO on the thermal, structural and in vitro properties of bioactive glass S53P4, 2012.

Gözde Unal: Laboratory assistant (co-supervised with Dr. Leena Hupa), 2012.

Chao Gao: Undergraduate student from Åbo Akademi (3 months), co-supervised with Dr. Leena Hupa, "Sintering of bioactive glass 13-93", 2011.

Jessica Jackson: Undergraduate student from Clemson University (1 year): "Alkaline/ alkaline earth doping effect on the optical, thermal and structural properties of tellurite based glasses", 2009.

Jean Remond: Undergraduate student from INSA Lyon/Clemson University (3 months): "Crystallization of tellurite and Ag-doped tellurite based glasses", 2009.

Benjamin Tincher: Undergraduate student from Clemson University (2 years): "Viscosity of new tellurite glasses", 2008-2009.

Adam Haldeman: Undergraduate student from Clemson University (1 year): "Processing and characterization of core-clad tellurite glass preforms and fibers fabricated by rotational casting", 2008.

Iona Moog: Undergraduate student from Bordeaux University (3 months) "Enhancement of mechanical properties of tellurite core-clad fibers", (2008)

Arnaud Martin: Undergraduate student from Bordeaux University/Clemson University (3 months): "Formation/Dissolution of Ag-nanoparticles in SiO_2 thin films using laser irradiation", 2007

- ***High School research project supervised at Clemson University***

Mikayla Spitler (summer 2008)

Ankit Grover (June 2007-summer 2008)

Amanda Kunkle (summer 2007)

8. Merits in teaching and pedagogical competence

- Successfully completed the following pedagogical training:
  "Cornerstones of teaching: learnings theories in university context" (5ECTS)
  "Planning and preparing teaching" (5ECTS)
  "Participatory learning and teaching" (2ECTS)
- Teaching experience:

Tampere University of Technology

- ELT 73106 **Bioceramics and their clinical applications**, (~ 30 students) Fall 2015-present

Åbo Akademi

- *MSc, 416503.0* **Metals Corrosion,** team-taught with Docent Leena Hupa, (~10 students) spring 2010-2014
- *MSc, 416302.0* **Inorganic Chemistry**, (~10 students) Fall 2010-2014

- *MSc, 416517.0* **Materials in Energy Technology,** spring 2011

Clemson University

- *CME 241* **Metrics Laboratory 1** (teacher assistant), fall 2007
- *CME 413* **Noncrystalline Materials** (teacher assistant), fall 2009

9. Awards, prizes and honours

- **2015** Outstanding reviewer award, Elsevier
- **2009** Graduate Fellow Program 2009, COMSET ($7500)
- **2008** Professional Enrichment Grant 2008 ($500)

Glass and Optical materials Division of the American Ceramic Society, Best Graduate Student Poster Award – First Place- in recognition of the poster presentation entitled: "Tellurite based glasses for infrared application". J. Massera, A. Haldeman, L. Petit, K. Richardson.

10. Other academic merits

- Jury Member at the PhD defense of Martina Cazzola at Politecnico di Torino, Italy, 23.03.2018
- Jury Member at the PhD defense of Gang Zhou at Rennes University, 21.10.2015
- Committee member of the JOHN JEPPSON AWARD (American Ceramic Society 2014-2017)
- Reviewer for Journal of Non-Crystalline Solids, Journal of the American Ceramic Society, Ceramic International, Materials Science and Engineering C, International Journal of Glass, Journal of Compounds and Alloys, Acta Biomaterialia, Biomedical Glasses.
- Reviewer for proposal submitted to the Polish National Foundation and the DGG (Germany)
- Member of the American Ceramic Society (ACerS) (2008-present)
- Member of the technical committee on bioactive glasses (TC04)
- Invited Talk at Politecnico di Torino (Italy), Rennes University (France), Bordeaux University (France) and the University of Honk Kong (Hong Kong).

11. Scientific and societal impact of research

- > 50 peer-reviewed articles, 2 conference proceedings, 1 book chapter and 1 monograph.
- > 60 presentation at international conferences (including 4 invited presentation)