1. **Full name and date**
   - Massera Jonathan
   - Male
   - CV written May 31st , 2016
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 2014- present:** 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**
   - **2016**

Jane and Aatos Erkko Foundation "AGATE: bioActive Glass scAffold for Tissue Engineering"	4 years	390000€
Academy of Finland: Mobility Grant to Germany	2 years	14400€
nLIGHT "Er^{3+}-$ALPO_4$ nanoparticles doped glasses"	6 months	4500€

   - **2015**

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

   - **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***

Amy Nommeot-Nomms: "Bioactive glass scaffolds manufactured via 3D printing", start Sept. 2016
Mizhang Xiao: co-supervised with Dr. Leena Hupa, 2011.

- ***Doctoral Student***

Ayush Mishra: Phosphate bioactive fibers for medical applications, (started 03.2015)

- ***Masters students***

Jenna Tainio: Student from Tampere University of Technology (6 months), "Sintering of borosilicate bioactive glasses", start May 2016
Hamasa Mohammad Hashem: Student from Tampere University of Technology (6 months), "Chitosan/bioactive glass composite: hydrolytic resistance and mechanical properties" started Jan. 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***

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)
  "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 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.
- 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

- 38 peer-reviewed articles, 2 conference proceedings and 1 monograph, H-index = 9 (excluding self-citation)
- 10 most important articles:

1."Dissolution behaviour of the bioactive glass S53P4 when sodium is replaced by potassium, and calcium with magnesium or strontium", L. Hupa, S. Fagerlund, **J. Massera**, L. Björkvik, Journal of Non-Crystalline Solids, 432 Part A (2016) 41-46

2."Processing and characterization of new phosphate glasses containing $CaAl_2O_4:Eu^{2+},Nd^{3+}$ and $SrAl_2O_4:Eu^{2+},Dy^{3+}$ microparticles", **J. Massera**, M. Gaussiran, P. Głuchowski, M. Lastusaari, L. Hupa, L. Petit, Journal of the European Ceramic Society, 35 (2015) 3863-3871.

3."The influence of SrO and CaO in silicate and phosphate bioactive glasses on human gingival fibroblasts", **J. Massera**, A. Kokkari, T. Närhi, L. Hupa, Journal of Materials Science: Materials in Medicine, 26 (2015) 196.

4."Crystallization behavior of phosphate bioactive glasses and its impact on glass reactivity", **J. Massera**, M. Mayran, J. Rocherullé, L. Hupa, Journal of Materials Science, 50 (2015) 3091-3102.

5."Phosphate-based glass fiber vs. bulk in vitro bioactivity in SBF and TRIS: Change in fiber optical response to probe in vitro glass reaction", **J. Massera**, I. Ahmed, L. Petit, V. Aallos, L. Hupa, Materials Science and Engineering C, 37 (2014) 251-257.

6."Influence of SrO substitution for CaO on the properties of bioactive glass S53P4", **J. Massera**, L. Hupa, Journal of Materials Science: Materials in Medicine, 25 (2014) 657-668.

7.*"In vitro* blood and fibroblast responses to thermoset BisGMA–TEGDMA/glass fiber–reinforced composite implants", A. A. Abdulmajeed, X. F. Walboomers, **J. Massera**, A. K. Kokkari, P. K. Vallittu, T. O. Närhi, Clinical Oral Implants Research, 25 (2014) 843-851.

8."Thermal properties and surface reactivity in simulated body fluid of new strontium ion-containing phosphate glasses" **J. Massera**, L. Petit, T. Cardinal, J.J. Videau, M. Hupa, L. Hupa, Journal of Materials Science: Materials in Medicine, 24 (2013) 1407-1416.

9."Effect of the glass composition on the chemical durability of zinc-phosphate-based glasses in aqueous solutions", **J. Massera,** K. Bourhis, L. Petit, T. Cardinal, L. Hupa, M. Hupa, Journal of Physics and Chemistry of Solids, 74 (2013) 121-127.

10."Crystallization behavior of the commercial bioactive glasses 45S5 and S53P4", **J. Massera**, S. Fagerlund, L. Hupa, M. Hupa, Journal of the American Ceramic Society, 95 (2012) 607-613.