

CURRICULUM VITAE  
Isabelle M.A. LOMBAERT, Ph.D.

**I. EDUCATION AND ADVANCED TRAINING**

Ph.D. in Medical Science	University Medical Center Groningen, Groningen, The Netherlands
Master of Science (MSc.)	Ghent University, Ghent, Belgium
Bachelor of Science (BSc.)	Ghent University, Ghent, Belgium

**II. ACADEMIC APPOINTMENTS**

- Pre-doctoral Fellow, Department of Cell Biology, University Medical Center Groningen, Groningen, The Netherlands
- Post-doctoral Visiting Fellow, Matrix and Morphogenesis Section, National Institute of Dental and Craniofacial Research, National Institutes of Health, Bethesda, MD
- Research Fellow, Matrix and Morphogenesis Section, National Institute of Dental and Craniofacial Research, National Institutes of Health, Bethesda, MD
- Assistant Professor, Department of Biologic and Materials Sciences, School of Dentistry, Biointerfaces Institute, University of Michigan, MI

**III. HONORS AND PROFESSIONAL AWARDS**

- 2004 Best Presented Poster Award, Groningen University Institute for Drug Exploration (GUIDE), Groningen, The Netherlands
- 2005 Young Investigator Award, European Society for Radiation Biology (ESRB), Leicester, United Kingdom
- 2005 Travel Award, Dutch Society for RadioBiology (NVRB), Lelystad, The Netherlands
- 2006 Travel Award, Keystone Conference Stem Cells, Whistler, Canada
- 2007 Best Presented Poster Award, International Society of Stem Cell Research (ISSCR), Cairns, Australia
- 2007 Scientific Award, Society of Medical and Dental Interaction (VMTI), Amsterdam, The Netherlands
- 2007 Travel Award, International Society of Stem Cell Research (ISSCR), Cairns, Australia
- 2008 Poster Award, International symposium of Stem Cells, Development and Regulation, Amsterdam, The Netherlands
- 2008 Poster Award, European Society for Therapeutic Radiology and Oncology (ESTRO-Siemens), Göteborg, Germany
- 2011 Fellows Award for Research Excellence (FARE Award), National Institutes of Health (NIH), Bethesda, MD
- 2011 Junior Investigator Award, International Association of Dental Research (IADR), San Diego, CA

- 2019 Award for most influential University of Michigan - School of Dentistry professors, the Michigan Alpha Omega Chi Dental Association
- 2019 The International Association of Dental Research – Salivary Research Group ‘Salivary Researcher of the Year’ award

#### IV. PUBLICATIONS

##### Articles in Peer-Reviewed Scientific Journals

1. **Lombaert I.M.A.**, Wierenga P.K., Kok T., Kampinga H.H., de Haan G., Coppes R.P. 2006. Mobilization of bone marrow stem cells by granulocyte colony-stimulating factor ameliorates radiation-induced damage to salivary glands. *Clin Cancer Res* 12(6), 1804-1812. PMID: 16551865.
2. **Lombaert I.M.A.**, Brunsting, J.B.F., Wierenga P.K., Faber H., Stokman M., Kok T., Visser W.H., Kampinga H.H., de Haan G., Coppes R.P. 2008. Rescue of salivary gland function after stem cell transplantation in irradiated glands. *PLoS ONE* 3(4):e2063. PMID: 18446241, PMCID PMC2329592.
3. **Lombaert I.M.A.**, Brunsting J.B.F., Wierenga P.K., Kampinga H.H., de Haan G., Coppes R.P. 2008.  $\Delta$ N23-Keratinocyte growth factor-induced expansion and differentiation of stem/progenitor cells prevents radiation damage to salivary glands. *Stem Cells* 26(10): 2595-25601. PMID: 18669914.
4. **Lombaert I.M.A.**, Brunsting J.B.F., Wierenga P.K., Kampinga H.H., de Haan G., Coppes R.P. 2008. Cytokine treatment improves parenchymal and vascular damage of salivary glands after irradiation. *Clin Cancer Res* 1;14(23):7741-50. PMID: 19047101.
5. Coppes R.P., van der Goot A., **Lombaert I.M.A.** 2009. Stem cell therapy to reduce radiation-induced normal tissue damage. *Semin Radiat Oncol* 19(2):112-21. PMID: 19249649.
6. Knox, S.M., **Lombaert, I.M.A.**, Reed, X., Gutkind, J.S, Vitale-Cross, L. and Hoffman M.P. 2010. Parasympathetic innervation maintains epithelial progenitor cells during salivary organogenesis. *Science* 329(5999):1646-1647. PMID: 20929848, PMCID PMC3376907.
7. **Lombaert I.M.A.**, Knox S.M., Hoffman M.P. 2011. Salivary gland progenitor cell biology provides a rationale for therapeutic salivary gland regeneration. *Oral Dis* 17(5):445-449. PMID: 23422662 PMCID: PMC3375332.
8. Knox, S.M.\* , **Lombaert, I.M.A.\***, Haddox, C., Abrams, S., Cotrim, A., Hoffman, M. 2013. Parasympathetic stimulation improves epithelial organ regeneration. *Nature Comm* 4:1494. PMID: 23422662, PMCID PMC3582394.  
\* **First authors**

9. Nanduri, L.S.\*, **Lombaert I.M.A.\***, van der Zwaar, M., Faber, H., Brunsting, J.F., van Os, R.P., Coppes R.P. 2013. Salisphere-derived C-KIT<sup>+</sup> cell transplantation restores tissue homeostasis in irradiated salivary glands.  
*Radiother Oncol* 13; S0167-8140. PMID: 23769181.  
**\* First authors**
10. **Lombaert I.M.A.**, Abrams S., Li L., Veraragavan P.E., Sethi A., Witt L., Hoffman M.P. 2013. Combined KIT and FGFR2b signalling regulates epithelial progenitor expansion during organogenesis.  
*Stem Cell Reports* 1(6): PMID: 24371813, PMCID PMC3871401.
11. Patel V.N., **Lombaert I.M.A.**, Cowherd S., Shworak N., Xu Y., Liu J., Hoffman M.P. 2014. 3-O-sulfated heparan sulfate controls KIT<sup>+</sup> progenitor expansion via autocrine regulation of 3-O-sulfotransferases.  
*Dev Cell* 29(6): 662-673. PMID: 24960693, PMCID PMC4105206.
12. Knosp W.M.\*, Knox S.M.\*, **Lombaert I.M.A.**, Haddock C.L., Patel V.P., Hoffman M.P. 2015. Submandibular parasympathetic gangliogenesis requires Sprouty-dependent Wnt signals from epithelial progenitors.  
*Dev Cell* 32(6): 667-677. PMID: 28505134 PMCID: PMC4374127.  
**\*, First authors**
13. Joo E.E., **Lombaert I.M.A.**, Yamada K.M. 2016. Hyperacetylation of microtubules in mesenchymal cells stimulates cytokeratin 14-positive epithelial progenitors in cultured salivary glands.  
*J Dent Res* 95(13):1518-1527. PMID: 27542391, PMCID PMC5119680
14. Hayashi, T., **Lombaert I.M.A.**, Patel, V.N., Hoffman M.P. 2017. Exosomal microRNA transport from mesenchyme regulates epithelial progenitor expansion during organogenesis.  
*Dev Cell* 40(1): 95-103. PMID: 28041903.
15. **Lombaert I.M.A.#**, Movahednia M.M., Adine C., Ferreira J.N.# 2017. Salivary Gland Regeneration: Therapeutic Approaches from Stem Cells to Tissue Organoids.  
*Stem Cells* 35(1):97-105. PMID: 27406006.  
**#, Corresponding authors**
16. Kirsch D.G., Diehn M., Kesarwala A.H., Maity A., Morgan M.A., Schwarz J.K., Bristow R, Demaria S., Eke I., Griffin R.J., Haas-Kogan D., Higgins G.S., Kimmelman A.C., Kimple R.J., **Lombaert I.M.A.**, Ma L., Marples B., Pajonk F., Park C.C., Schaeue D., Bernhard E.J. 2017. The Future of Radiobiology.  
*J Natl Cancer Inst.* doi: 10.1093/jnci/djx231. PMID: 29126306
17. Ferreira J.N.A.\*, Zheng C.\*, **Lombaert I.M.A.**, Goldsmith C.M., Cotrim A.P., Symonds J.M., Patel V.N. and Hoffman M.P.H. 2018. Neurturin gene therapy

protects parasympathetic function to prevent irradiation-induced murine salivary gland hypofunction.

*Mol Ther Methods Clin Dev* 23(9):172-180.

\*, First authors

18. Athwal H.K. \*, Murphy III G. \*, Tibbs E. \*, Cornett A., Hill E., Yeoh K., Berenstein E., Hoffman M.P., and **Lombaert I.M.A.** # 2019. Sox10 regulates plasticity of epithelial progenitors toward secretory units of exocrine glands.  
*Stem Cell Reports*, 12(2):336-380. PMID: 30713042  
\*, First authors. #, **Corresponding author**
19. Cornett A., Athwal H.K. \*, Hill E. \*, Murphy III G., Yeoh K., Moskaluk C.A., Witt R.L., D’Silva N.J. \*, Agarwal S. \*, and **Lombaert I.M.A.** # 2019. Serial patient-derived orthotopic xenografting of adenoid cystic carcinomas recapitulates stable expression of phenotypic alterations and innervation.  
*EBioMedicine*, doi: 10.1016/j.ebiom.2019.02.011 PMID: 30765319  
\*, Shared authorship. #, **Corresponding author**
20. Vining K.H. \*, **Lombaert I.M.A.** \*, Patel V.N., Kibbey S.E., Pradhan-Bhatt S., Witt R.L., and Hoffman M.P. 2019. Neurturin-containing laminin matrices support innervated branching epithelium from adult epithelial salispheres.  
*Biomaterials*, 216: 119245. PMID: 31200143  
\* **First authors**
21. Athwal, H.K., and **Lombaert I.M.A.** # 2019. 3D organoid formation from the murine salivary gland cell line SIMS.  
*Bio-protocol*, 9. DOI: 19.21769/BioProtoc.3386  
#, **Corresponding author**

## **Books**

1. **Lombaert I.M.A.** 2008. Regeneration of irradiated salivary glands by stem cell therapy. Drukkerij van Denderen, Groningen, The Netherlands.  
ISBN. 978-90-367-3370-0.

## **Chapters in Books**

1. Coppes R.P., **Lombaert I.M.A.** 2010. Is regeneration of diseased salivary glands a reasonable approach?  
In: Dry Mouth, The Malevolent Symptom: A Clinical Guide.  
Editors: Screenby L. and Vissink A.
2. **Lombaert I.M.A.**, Hoffman M.P. 2010. Epithelial stem/progenitor cells in the embryonic mouse submandibular gland.  
In: Salivary glands: Development, Adaptations and Disease. Frontiers of Oral Biology

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Editors: Tucker A. and Miletich, I.

3. **Lombaert I.M.A.**, Hoffman M.P. 2013. Stem cells in salivary gland development and regeneration.  
In: Stem cells in craniofacial development, regeneration, and repair  
Editors: Huang, G. and Thesleff I.
4. **Lombaert I.M.A.** # 2014. Salivary Gland Regeneration – Appendix 5: Considering applications for regenerative medicine.  
In: NIH Intramural Pluripotent Stem Cell Protocol Book  
Editors: Hunsberger J., Becker S., and Rao M.  
# , **Corresponding author**
5. **Lombaert I.M.A.** # 2017. Implications of Salivary Gland Developmental Mechanisms for the Regeneration of Adult Damaged Tissues.  
In: Salivary Gland Development and Regeneration: Advances in Research and Clinical Approaches to Functional Restoration.  
Editor: Cha, S.  
# , **Corresponding author**
6. Athwal H.K., **Lombaert I.M.A.** # 2019. Salivary Gland Embryology, Physiology, and Stem Cell Complexity.  
In: Surgery of the Salivary Glands.  
Editor: Witt, R.L.  
# , **Corresponding author**