MANUELA VENTURA

WORK EXPERIENCE

April 2022 – Present **Head of Animal Resources General Service Unit – Human Technopole Foundation, Milan, Italy**

- Establishing, maintaining, and constantly evolving an advanced facility for preclinical and advanced molecular imaging research.
- Definition and development of daily operation policies.
- Management of operating reports, budgets, and financial forecasts.
- Management of internal and external resources, and oversight of daily operations.

May 2019 – Mar 2022 **Manager STTARR Innovation Centre, Toronto, Canada**

- Execution and supervision of Preclinical Imaging, Oncology, and Pharmacology research.
- Management of day-to-day operations, STTARR personnel and facility maintenance.
- Management of internal resources and external vendors.
- Management / mitigation of project risk.
- Preparation of annual operating reports, budgets, and financial forecasts.
- Facilitate consultation and administrative coordination between investigators and ancillary departments, research subjects, sponsoring organizations, and/or regulating bodies.
- Managing stakeholder expectations through effective communication.
- Assist in managing weekly status calls and budget reviews.
- Deliver high quality research datasets while meeting budgetary, timeline and scope constraints.
- Imaging data collection and interpretation.
- Definition and development of research policies to support the STTARR core facility.

Jan 2018 – May 2019 **Scientific Associate – University Health Network - STTARR Innovation Centre, Toronto, Canada**

- Lead collaborations with multiple industry partners, providing comprehensive support to the clients from study conception to completion.
- Develope scopes of work, tracking budgets and timelines.
- Design and implementation of experimental workflows and standard operating procedures.
- Data collection and statistical analysis of experimental results.
- Generation and tracking of annual and study-specific budgets.
- Design and presentation of scientific reports at clients, national and international meetings.

Dec 2017 – Present **Application Specialist North America – Molecubes NV, Ghent, Belgium**

- Train customers on Molecubes' preclinical PET, SPECT and CT imaging systems.
- Provide ongoing technical and scientific support to existing customers.
- Support sales by providing on-site and remote demonstrations of equipment.
- Generation of literature reviews, application notes, and marketing material.
- Report on customer feedback through detailed site visit and training reports.

Jan 2015 – Jan2019 **Application Specialist North America – Aspect Imaging, Shoham, Israel**

- Train customers on Aspect's MRI clinical and preclinical 1T systems.
- Provide ongoing technical and scientific support to existing customers.
- Support sales by providing on-site and remote demonstrations of equipment.

- Report on customer feedback through detailed site visit and training reports.

Jan 2014 – Jan 2018 **Postdoctoral Fellow –University Health Network, STTARR Innovation Centre, Toronto, Canada**

- Image-guided drug delivery with CT, MRI, Optical and Nuclear Medicine Imaging modalities.
- PK and efficacy studies.
- Characterization of companion diagnostics and multi modal contrast agents.
- Set-up of experimental workflows, study execution, data collection and analysis.
- Delivery of data packages.
- Responsible of the logistics, studies progression, and timelines.

EDUCATION AND TRAINING

Nov 2009 – Nov 2013 **PhD in Medical Science - Radboud University, Nijmegen, the Netherlands**
Thesis: *Preclinical Imaging in Bone Tissue Engineering.*

- Management of multidisciplinary collaborations and projects as part of the EU consortium MultiTERM (Tissue Engineering and Regenerative Medicine).
- Imaging of bone regeneration and biomaterials bio-integration.
- Perform surgical procedures and development of bone defect models.
- Design and development of multimodality contrast agents.

Oct 2007 – Jul 2009 **MSc Medical Biotechnology – University of Torino, Italy**
Thesis: *Characterization and Biological Activity of Human Mesenchymal Stem Cells - Derived Microvesicles.*

- Awarded best thesis in Medical Biotechnology, 2009.
- Grade: 110/110 *cum Laude*.

2004 – Oct 2007 **BSc Biotechnology – University of Torino, Italy**
Thesis: *Regulation of MHC Gene Expression by siRNA with Applications in Transplants.*

- One-year internship at the transplantation immunology unit.

1999 – 2004 **Diploma of Qualified Chemist – Istituto Tecnico Industriale L. Casale, Torino, Italy**

- Organic and Inorganic Chemistry, Qualitative and Quantitative Laboratory Analysis.

RELEVANT COURSEWORK & TRAINING

PMP Certification – Ongoing

Scientific Selling Online Course – Completed in September 2016. Udemy.com

2 years R&D and Project Management Training Program, 2014-2016 - Mitacs Elevate – University Health Network, Toronto, ON, Canada.

LANGUAGES

- Italian (Native), English (Fluent)

LIST OF PEER REVIEWED PUBLICATIONS:

Kisiel M, Ventura M, Oommen PO, George A, Walboomers XF, Hilborn J, Varghese OP. Critical assessment of rhBMP-2 mediated bone induction: an in vitro and in vivo evaluation. J Control Release. 2012;162(3):646-53.

Kisiel M, Martino MM, Ventura M, Hubbell JA, Hilborn J, Ossipov DA. Improving the osteogenic potential of BMP-2 with hyaluronic acid hydrogel modified with integrin-specific fibronectin fragment. Biomaterials. 2013 Jan;34(3):704- 12.

Ventura M, Sun Y, Oosterwijk E, Jansen JA, Walboomers XF, Heerschap A. Zero echo time magnetic resonance imaging of contrast-agent-enhanced calcium phosphate bone defect fillers. Tissue Eng Part C Methods. 2013 Apr;19(4):281-7.

Ventura M, Sun Y, Rusu V, Laverman P, Borm P, Heerschap A, Oosterwijk E, Boerman OC, Jansen JA, Walboomers XF. Dual Contrast Agent for Computed Tomography and Magnetic Resonance Hard Tissue Imaging. Tissue Eng Part C Methods. 2013. 19(6):405-16.

Kisiel M, Klar AS; Martino MM; Ventura M; Hilborn J. Evaluation of injectable constructs for bone repair with a subperiosteal cranial model in the rat. PlosONE. PLoS One. 2013;8(8):e71683.

Kisiel M, Klar AS, Ventura M, Buijs J, Mafina MK, Cool SM, Hilborn J. Complexation and sequestration of BMP-2 from an ECM mimetic hyaluronan gel for improved bone formation. PLoS One. 2013 Oct 22;8(10):e78551.

Ventura M, Sun Y, Cremers S, Borm P, Birgani ZT, Habibovic P, Heerschap A, van der Kraan PM, Jansen JA, Walboomers XF. A theranostic agent to enhance osteogenic and magnetic resonance imaging properties of calcium phosphate cements. Biomaterials. 2014 Feb;35(7):2227-33.

Ventura M, Franssen GM, Oosterwijk E, Boerman OC, Jansen JA, Walboomers XF. SPECT versus PET monitoring of bone defect healing and biomaterial performance in vivo. J Tissue Eng Regen Med. 2014.

Ventura M, Boerman OC, Franssen GM, Bronkhorst E, Jansen JA, Walboomers XF. Monitoring the biological effect of BMP-2 release on bone healing by PET/CT. J Control Release. 2014 Jun 10;183:138-44.

Ventura M, Boerman OC, de Korte C, Rijpkema M, Heerschap A, Oosterwijk E, Jansen JA, Walboomers XF. Preclinical Imaging in Bone Tissue Engineering. Tissue Eng Part B Rev. 2014.

Pippenger BE, Ventura M, Pelttari K, Feliciano S, Jaquiery C, Scherberich A, Walboomers XF, Barbero A, Martin I. Bone-forming capacity of adult human nasal chondrocytes. J Cell Mol Med. 2015 Feb 16.

Zheng J, De Souza R, Ventura M, Allen C, Jaffray DA. Chapter title: The Role of Imaging in Nanomedicine Development and Clinical Translation. Book title: Nanomedicines: Design, Delivery and Detection. Editor: Dr. Martin Braddock. Publisher: Royal Society of Chemistry Publishing, Thomas Graham House.

Zou J, Talbot F, Tata A, Ermini L, Franjic K, Ventura M, Zheng J, Ginsberg H, Post M, Ifa DR, Jaffray D, Miller RJ, Zarrine-Afsar A. Ambient Mass Spectrometry Imaging with Picosecond Infrared Laser Ablation Electrospray Ionization (PIR-LAESI). Anal Chem. 2015 Dec 15;87(24):12071-9.

Tata A, Gribble A, Ventura M, Ganguly M, Bluemke E, Ginsberg G, Jaffray D, Ifa DR, Vitkin A, Zarrine-Afsar A. Wide-Field Tissue Polarimetry Allows Efficient Localized Mass Spectrometry Imaging of Biological Tissues. Chemical Science Dec 2015.

Juneja SC, Ventura M, Jay DG, Veillette C. A Less Invasive Approach of Medial Meniscectomy in Rat: A Model to Target Early or Less Severe Human Osteoarthritis. J Arthritis 2016, 5:2.

Bilkey J, Tata A, McKee TD, Porcari AM, Bluemke E, Woolman M, Ventura M, Eberlin MN, Zarrine-Afsar A. Variations in the Abundance of Lipid Biomarker Ions in Mass Spectrometry Images Correlate to Tissue Density. Anal Chem. 2016 Dec 20;88(24):12099-12107.

Tata A, Woolman M, Ventura M, Bernards N, Ganguly M, Gribble A, Ginsberg H, Vitkin A, Zheng J, Zarrine-Afsar A. Rapid Detection of Necrosis in Breast Cancer with Desorption ElectroSpray Ionization Mass Spectrometry. Sci Rep. 2016 Oct 13;6:35374.

Matsumoto Y, Larose J, Kent OA, Wagner MJ, Narimatsu M, Levy AD, Tong J, Krieger JR, Riggs E, Storozhuk Y, Pasquale J, Ventura M, Moran MF, Grynpas MD, Wrana JL, Superti-Furga G, Koleske AJ, Pendergast AM, Rottapel R. Reciprocal stabilization of ABL and TAZ regulates embryonic skeletal development through activation of the master transcription factor RUNX2. J Clin Invest. 2016 Dec 1;126(12):4482-4496.

Woolman M, Gribble A, Bluemke E, Zou J, Ventura M, Bernards N, Wu M, Ginsberg HJ, Dasc S, Vitkin A, Zarrine-Afsar A. Optimized Mass Spectrometry Analysis Workflow with Polarimetric Guidance for Efficient ex vivo and in situ Sampling of Biological Tissues. Sci Rep. 2017 Mar 28;7(1):468.

Lee H, Gaddy D, Ventura M, Bernards N, de Souza R, Kirpotin D, Wickham T, Fitzgerald J, Zheng J, Hendriks BS. Companion Diagnostic 64Cu-Liposome Positron Emission Tomography Enables Characterization of Drug Delivery to Tumors and Predicts Response to Cancer Nanomedicines. Theranostics. 2018 Mar 21;8(9):2300-2312.

Bernards N, Ventura M, Fricke IB, Hendriks BS, Fitzgerald J, Lee H, Zheng J. Liposomal Irinotecan Achieves Significant Survival and Tumor Burden Control in a Triple Negative Breast Cancer Model of Spontaneous Metastasis. Mol Pharm. 2018 Sep 4;15(9):4132-4138.

Ventura M, Bernards N, De Souza R, Fricke IB, Hendriks BS, Fitzgerald JB, Paz N, Lee H, Klinz SG, Zheng J. Longitudinal PET imaging to monitor treatment efficacy by liposomal irinotecan in orthotopic patient-derived pancreatic tumor models of high and low hypoxia. [Accepted for publication – Mol Imaging Biol, May 2019.

Woolman M, Qiu J, Fischer C, Ferry I, Dara D, Katz L, Daud F, Wu M, Ventura M, Bernards N, Chan H, Fricke I, Zaidi M, Wouters B, Rutka J, Das S, Irish J, Weersink R, Ginsberg H, Jaffray D, Zarrine-Afsar A. In situ tissue pathology from spatially encoded mass spectrometry classifiers visualized in real time through augmented reality. Chem. Sci. July 2020.

Autorizzo il trattamento dei miei dati personali ai sensi del Dlgs 196 del 30 giugno 2003 e dell'art. 13 GDPR.

Manuela Ventura

Firmato da
ALESSANDRA POGGIANI
Data: 22/05/2023
17:04:05 CEST

Vistato da PAOLA MOSCATELLI
il 22/05/2023 alle 12:17:51
CEST

Approved by NATALIA MEANI
on 22/05/2023 at 17:16:20
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