CURRENT POSITION

Associate Professor at Humanitas University (March 2023 – Present)
Assistant Professor/RTD-B at Humanitas University (April 2022 – March 2023)
Group Leader at Humanitas Clinical and Research Center (April 2017 – Present)

PROFESSIONAL EXPERIENCE

2011 – 2017 Postdoctoral Research Fellow

Institution: Department of Stem Cell and Regenerative Biology, Harvard University,

Cambridge, MA, USA.

Supervisor: Prof. Paola Arlotta

Research area: Developmental Neuroscience and Stem Cell Biology

2008 – 2011 Visiting Ph.D. Student

Institution: Center for Regenerative Medicine, Massachusetts General Hospital, Harvard

Medical School, Boston, MA, USA. Supervisor: Prof. Paola Arlotta Research area: Developmental Neuroscience and Stem Cell Biology

2007 – 2011 Ph.D. Student

Institution: Telethon Institute of Genetic and Medicine (TIGEM), Naples, Italy Supervisor: Prof. Michèle Studer. Research area: Developmental Neurobiology

2002 – 2003 Undergraduate Research Student

Institution: Department of Physics, University of Naples "Federico II", Naples, Italy

Supervisor: Prof. Marco Durante. Research area: Biophysics

Significant career breaks:

August-October 2011 (maternity leave); June- September 2014 (maternity leave)

ACADEMIC QUALIFICATIONS

11/2018 Italian Scientific Qualification as Associate Professor in Human Anatomy (05/H1)

04/2017 Italian Scientific Qualification as Associate Professor in Applied Biology (05/F1) and Comparative Anatomy and Cytology (05/B2)

04/2011 Ph.D. in Molecular Medicine

Institution: European School of Molecular Medicine (SEMM), University of Naples "Federico II", Naples, Italy.

Supervisor: Prof. Michèle Studer

Thesis: Molecular development and laminar distribution of GABAergic interneurons of the cerebral cortex

03/2006 M.S. in Biological Sciences (110/110 cum laude/with honors)

Institution: Faculty of Biological Sciences, University of Naples "Federico II", Naples, Italy.

Supervisors: Prof. Michèle Studer and Prof. Carla Perrone Capano

Thesis: Specification of cortical GABAergic interneurons: the role of the transcription factor COUP-TF1

PUBLICATIONS

SCOPUS Author ID: 36021173000; ORCID Author ID: 0000-0001-6498-2590; Citations: 2894; h index: 14

1. Zuccaro E#, Murek V, Chen HH, Mancinelli S, Kim K, Oyler-Castrillo PG, Gerhardinger C, Curry N, Velasco S, Byrnes AE, Chen HH, Chiacchiarelli D, Yuan W, Neale BM, Ziller M, Lodato S* and Arlotta P* (*corresponding author)

Human-specific enrichment of schizophrenia risk-genes in callosal neurons of the developing neocortex.

Biorxiv, 2021, in revision, 10.1101/2021.09.10.459747.

2. Yuan W, Ma S, Brown JR, Kim K, Murek V, Trastulla L, Meissner A, **Lodato S**, Shetty A, Levin JZ, Buenorostro JD, Ziller, Arlotta P.

Temporally-divergent regulatory mechanisms govern neuronal development and diversification in the neocortex.

Nature Neuroscience, 2022, 25, 1049–1058, 10.1038/s41593-022-01123-4

3. Arlotta P, Chen F, <u>Lodato S#.</u> Margrie TW, Nowakowski TJ, Pederson T, Rico B. (#primarily responsible for drafting the consensus evaluation).

Dissecting cellular diversity of cortical GABAergic cells across multiple modalities: A turning point in neuronal taxonomy.

Faculty Reviews-Landmark Evaluations, 2022, 10.12703/r-01-000009.

4. Mirabella F, Desiato G, Mancinelli S, Fossati G, Rasile M, Morini R, Markicevic M, Grimm C, Termanini A, Peano C, Kunderfranco P, DiCristo G, Zerbi V, Menna E, **Lodato S**, Matteoli M* and Pozzi D*.

Transient Maternal IL-6 boosts glutamatergic synapses and disrupts hippocampal connectivity in the offspring.

Immunity, 2021, Nov 9;54(11):2611-2631.e8, 10.1016/j.immuni.2021.10.006.

5. Carloni S, Bertocchi A, Mancinelli S, Erreni M, Braga D, Giugliano S, Di Sabatino A, Penna G, Borreca A, Matteoli M, **Lodato S*** and Rescigno M* (***corresponding author**). *Identification of a Choroid Plexus Vascular Barrier whose closure upon Intestinal Inflammation leads to Behavioral Impairments.*

Science, 2021 Oct 22;374(6566):439-448, 10.1126/science.abc6108.

6. Fontana C, Marasca F, Provitera L, Mancinelli S, Pesenti N, Sinha S, Passera S, Abrignani S, Mosca F, **Lodato S**, Bodega B, Fumagalli M.

Early maternal care restores LINE-1 methylation and enhances neurodevelopment in preterm infants.

BMC Medicine, 2021 Feb 5;19(1):42. 10.1186/s12916-020-01896-0.

7. Jin X, Simmons SK, Guo A, Shetty AS, Ko M, Nguyen L, Jokhi V, Robinson E, Oyler P, Curry N, Deangeli G, **Lodato S**, Levin JZ, Regev A, Zhang F, Arlotta P. *In vivo Perturb-Seq reveals neuronal and glial abnormalities associated with autism risk genes.*

Science, 2020, Nov 27;370(6520):eaaz6063., 10.1126/science.aaz6063.

8. Tambalo M, Lodato S* (*corresponding author).

Brain organoids: Human 3D models to investigate neuronal circuits assembly, function and dysfunction.

Brain Research, 2020, Nov 1;1746:147028., 10.1016/j.brainres.2020.147028.

Mancinelli S, Lodato S* (*corresponding author).

Decoding neuronal diversity in the developing cerebral cortex: from single cells to functional network.

Current Opinion in Neurobiology, 2018, Dec;53:146155, 10.1016/j.conb.2018.08.001.

10. Lodato S*, Arlotta P* (*corresponding author)

Generating Neuronal Diversity in the Mammalian Cerebral Cortex

Annual Review of Cell and Developmental Biology, 2015;31:699-720.

10.1146/annurevcellbio-100814-125353

11. Lodato S, Shetty AS, Arlotta P.

Cerebral cortex assembly: Generating and reprogramming projection neuron diversity.

Trends in Neurosciences, **2015**;38:117-125., 10.1016/j.tins.2014.11.003.

12. <u>Lodato S</u>, Molyneaux BJ, Zuccaro E, Goff LA, Chen HH, Yaun W, Meleski AM, Takahashi E, Mahony S, Rinn JL, Gifford D, Arlotta P.

Gene co-regulation by Fezf2 selects neurotransmitter identity and connectivity of corticospinal neurons.

Nature Neuroscience, 2014, 17, 1046-1054, 10.1038/nn.3757 (With "News and Views" article and highlighted by Faculty of 1000).

13. Sauvageau M#, Goff LA#, <u>Lodato S#.</u> Bonev B, Groff AF, Gerhardinger C, Sanchez-Gomez DB, Hacisuleyman E, Li E, Spence M, Liapis SC, Mallard W, Morse M, Swerdel MR,

D'Ecclessis MF, Moore JC, Lai V, Gong G, Yancopoulos GD, Frendewey D, Kellis M, Hart RP, Valenzuela DM, Arlotta P, Rinn JL **(# equal contribution)**

Multiple knockout mouse models reveal lincRNAs are required for life and brain development **eLife**, **2013**, 2, e01749. 10.7554/eLife.01749

14. Tomassy G#, Lodato S#. Arlotta P (#equal contribution)

A Sip of GABA for the Cerebral Cortex.

Neuron, **2013**, 77, 1-3. 10.1016/j.neuron.2012.12.026

15. Zhang F#, Cong L#, **Lodato S**, Kosuri S, Church G, Arlotta P (#equal contribution). *Efficient construction of sequence-specific TAL effectors for modulating mammalian transcription.*

Nature Biotechnology, 2011, 29, 149-154. 10.1038/nbt.1775

16. Lodato S, Rouaux C, Quast K, Jantrachotechatchawan C, Hensch T, Arlotta P. Excitatory Projection Neuron Subtypes Control the Distribution of Local Inhibitory Interneurons in the Cerebral Cortex

Neuron, **2011**, 69, 763-779, 10.1016/j.neuron.2011.01.015 (With "Preview" article and highlighted by Faculty of 1000).

17. Lodato S#. Srubek Tomassy G#, De Leonibus E#, Armentano M, Andolfi G, Uzcategui YG, Gaztelu JM, Arlotta P, Menendez de la Prida L, Studer M (#equal contribution).

Loss of COÚP-TFI alters the balance between caudal ganglionic eminence- and medial ganglionic eminence- derived cortical interneurons and results in resistance to epilepsy. **Journal of Neuroscience**, **2011**, 31, 4650-4662. 10.1523/JNEUROSCI.6580-10.2011

18. Srubek Tomassy G, <u>Lodato S</u>, Trayes-Gibson Z, Arlotta P.

Development and Regeneration of Projection Neuron Subtypes of the Cerebral Cortex. **Science Progress, 2010**, 93, 151-169, 10.3184/003685010X12705764469952.

19. Srubek Tomassy G#, De Leonibus E#, Jabaudon D#, **Lodato S**, Alfano C, Mele A, Macklis JD, Studer M **(#equal contribution).**

Area-specific temporal control of corticospinal motor neuron differentiation by COUP-TFI. **Proceedings of the National Academy of Sciences USA, 2010**, 107, 3576-358. 10.1073/pnas.0911792107

PUBLICATIONS UNDER REVISION

- **20.** Tambalo M, Ratti G and Lodato S* (*corresponding author). The microcephalic brain: a tale of progenitors, neurons, and ion channels. Invited review, in revision
- **21.** Rizzo F, Bono S, Ruepp M, Salani S, Ottoboni L, Abati E, Melzi V, Cordiglieri C, Pagliarani S, De Gioia R, Anastasia A, Taiana M, Garbellini M, Kunderfranco P, **Lodato S**, Cazzato D, Lonati C, Cartelli D, Bresolin N, Corti S, Comi GP, Nizzardo M. Combined RNA interference and gene replacement therapy targeting MFN2 for the treatment of Charcot-Marie-Tooth type 2A, in revision.
- **22.** Faravelli I*, Rinchetti P*, Tambalo M, Mapelli L, Mancinelli S, Rizzuti M. Simutin I, Miotto M, Paraboschi E, Cordiglieri C, Forotti G, Peano C, Kunderfranco P, Calandriello L, Bresolin N, Comi GP, D'Angelo E, Nizzardo M, **Lodato S***, and Corti S* **(*last and corresponding authors**).

Developmental disease signatures of Spinal Muscular Atrophy in CNS 3D organoids can be reverted by peptide- antisense oligonucleotides treatment

INSTITUTIONAL RESPONSIBILITIES

2017 – present Faculty member, Humanitas University

2017 – present Member of the Quality Assurance Committee, Humanitas University

2018 – present Member of PhD Committee (3), University of Milan, Milan, Italy

2019 Member of PhD Committee, Universitas Miguel Hernandez, Alicante, Spain

2019 – 2021 Member of PhD Committee (8), Humanitas University

2021 – 2022 Member of PhD Committee (3), Humanitas University

HONOURS AND AWARDS

2021- present Ambassador of the ALBA Network, toward Diversity and Equity in Brain Science

2018 – 2023 Elected member of the FENS (Federation of European Neuroscience Societies) - Kavli Network of Excellence (FKNE)

2017 Recipient of "Fondazione Atena" Award (Research Fellowship)

2016 – 2018 Elected member of the Next Generation Leaders Advisory Council of the Allen Institute for Brain Science

2010 – 2015 Recipient of the Harvard University Certificate of Distinction in Teaching

2007 – 2011 Recipient of the Doctoral Fellowship from the European School of Molecular Medicine (SEMM) (First ranked and fully founded)

2002 – 2003 Final candidate at the SUCCESS Student Contest 2002, a competition organized by the European Space Agency (ESA) for European university students from all disciplines to propose an experiment that could fly on board the International Space Station (ISS)

GRANTS

2023-2026 "Linking Park": **FRRB 2022**, Unit Leader, EUR 1,250,000 (EUR 370,000)

2022-2025 PNRR-CN3 "National Center for Gene Therapy and Drugs based on RNA Technology", Unit coordinator, EUR 1,250,000

2022-2027 "IMPACT: Investigating the Molecular identity of PAcemaker neurons in CorTical development" (101043003), *ERC Starting Grant 2021*, PI, EUR 1,490,000

2022-2023 "Elucidating PWS pathophysiology in patient derived 3D human cortical organoids", *Prader-Willi Research Foundation*, PI, EUR 110,000

2021-2024 "Dissecting the role of HCN1 in Developmental and Epileptic Encephalopathy (DEE) by patient-specific models of cerebral cortex development in vivo and in 3Dcortical organoids" (GR-2019- 12368561), *Italian Ministry of Health*, PI, EUR 450,000.

2020-2023 "An integrated approach to investigate the molecular substrates of autism spectrum disorder/Intellectual Disabilities in the developing cerebral cortex (GR-2019-1785), *Cariplo Foundation*, PI, EUR 249,000

2019 – 2022 "Structural variations of the neural genome as prognostic markers for prematurity related neurodevelopmental disorders in childhood" (GR-2018-12365280), *Italian Ministry of Health*, Co-PI, EUR 450,000.

2018 Athena Foundation for Excellence in Research, EUR 5,000

PROFESSIONAL ACTIVITIES/EDITORIAL ACTIVITIES

2023 Reviewer for Ben Barres Early Career Acceleration Awards Chan Zuckerberg Initiative
 2022-2023 Reviewer for the French National Research Agency (ANR)- Cellular and
 Developmental Neuroscience Committee

2021 Research Proposal Reviewer, European Commission (ERC Advanced)

2021 Research Proposal Reviewer, Swiss National Science Foundation, Switzerland, and Department of Biotechnology, India

2021 Research Proposal Reviewer, Austrian Science Fund (FWF)

2021 Research Proposal Reviewer, DIM ELICIT, France

2021 – 2023 Editorial Board Member, Brain Research

2020 – presentAssociate Editor, Frontiers in Neuroscience – Neurodevelopment **2015 – present**Peer reviewer for Science, Neuron, PNAS, Cerebral Cortex, Nature
Neuroscience, Molecular Psychiatry, Nature Communication, The *EMBO Journal*,
Development, *Elife* (selection of journals).

ORGANISATION OF SCIENTIFIC MEETINGS

2024 Member of the Organizing Committee of "The multiscale integration of Neural Functions", Isola San Servolo, 11-14 September 2024

2022 Chair and Coordinator of the Special Event "Colors of the Brainbow, FENS Meeting, Paris, 9th July 2022

2022 Member of the Organizing Committee, FENS KAVLI ALUMNI MEETING, Milan, 14-16th December 2022

2022 Member of the Organizing Committee, Abcam "Reprogramming and Development" Meeting, Dresden, Germany, October 2022 (postponed)

2020 Member of the Organizing Committee, MicrobiotaMI, Milan, Italy, January 2020

TEACHING EXPERIENCE

2019 –present Instructor and Course Coordinator – "Histology and Human Embryology", MEDTEC School 6-year degree course in Medicine and Biomedical Engineering, joined program between Humanitas University and Politecnico of Milan, Italy **2017 – 2019** Instructor and Course Coordinator – "Human Anatomy and Physiology", Nursing School, Humanitas University

2017 – 2019 Instructor – "Human Anatomy", Physiotherapy School, Humanitas University
 2015 Teaching Assistant – Course SCRB182 "Got (new) Brain? The Evolution of Brain Regeneration", Harvard University. Instructor: Prof. Paola Arlotta

2015 Teaching Assistant – Course SCRB187 "Brains, Identity, and Moral Agency", Harvard University. Instructor: Prof. Steven E. Hyman

2013 Teaching Assistant – Course SCRB130 "Biomedical Entrepreneuring: Turning Ideas into Medicine", Harvard University. Instructor: Prof. Derrick J. Rossi

Fall 2010 – 2013 Teaching Assistant – Course SCRB160 "Experimental Embryology: From Stem Cells to Tissues and Back Again", Harvard University. Instructor: Prof. Paola Arlotta

SUPERVISING AND MENTORING

2022 – present Illia Simutin, Matteo Miotto (bioinformatic fellows), Alessandro Fontanesi (predoc fellow), Gabriele Di Napoli (technician), Samuele Lippi (Universita' di Pavia, intern)

2021 – 2022 Desireè Giuliano (Undergraduate student, University of Pavia) (HUGe Facility, Humanitas) Marlene Khin, University of Heidelberg, (visiting student)

2021 – present Giulia Demenego (PhD Student, Hunimed), Vanessa Aragona (PhD student, Hunimed), Elena Florio (PhD Hunimed)

2020 – present2018 – presentMonica Tambalo (Post-doctoral fellow)Sara Mancinelli (Post-doctoral fellow)

2018 – 2021 Rosalba Proce (Undergraduate student, University of Pavia) (MDC Berlin)

2017 – 2018 Carla Quiles Crespo (Visiting student, University of Alicante)

MEMBER of PhD COMMITEES:

- Dr. Ersilia Vinci, Humanitas University, Milano: Supervisor: Dr. Carlo Sala (December 2021)
- Dr. Noelia Anton Bolanõs, Universitas Miguel Hernandez, Alicante, Spain: Supervisor: Prof. Guillermina Lopez Bendito (December 2019)
- Dr. Marta Russo, Humanitas University, Milano, Supervisor: Prof. Gioacchino Natoli (Decemebr 2019)
- Dr. Daniele Facchi, Humanitas University, Milano, Supervisor: Prof. Stefano Duga (January 2020)
- Dr. Jessica Pagano, Humanitas University, Milano, Supervisor: Dr. Chiara Verpelli (January 2020)
- Dr. Vittoria Bocchi, Università degli Studi di Milano, Supervisor: Prof. Elena Cattaneo
- Dr. Angela Laporta, Università degli Studi di Milano, Supervisor: Prof. Elena Cattaneo and Prof. Chiara Zuccato
- Dr. Simone Chiola, Universita' SISSA, Trieste, Supervisor: Prof. Antonello Mallamaci (October 2018)

DISSEMINATION ACTIVITIES (since 2016 to present)

- Radio24 Radio Interview, June 2023
- Radio Uno VITTORIA, Interview March 2022

- Essenziale Editoriale, Article June 2022
- "OK Salute" interview, June 2022
- Radio Number ONE interview, March 2022
- REBUS Rai 3 video interview, February 2022
- Affari & Finanza interview, March 2022
- Health Wired 2022, Video Interview, February 2022
- Brain Week 2022, interview March 2022
- Invited speaker to "How to pitch your science in an online environment", FENS Kavli webinar, March 2021
- Organizer at Notte dei Ricercatori "Meet me Tonight 2019", Giardini Indro Montanelli, Milan
- Scientific Organizer of the "Escape Room- Brain" activity at the Junior Day 2019, Humanitas University
- Invited speaker at "La settimana del Cervello: Tessuti nervosi e organoidi cerebrali: realtà e prospettive", Milan
- Invited speaker at "Principi delle 3RS e Neuroscienze" organized by Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia-Romagna "Bruno Ubertini"
- Invited speaker for "Pint of Science 2018", La Santeria, Milan
- Invited speaker at Liceo A. Volta, Milan, within the "Alternanza Scuola Lavoro framework"
- Scientific organizer for Research Humanitas Professional Days, Milan (February, April, November)
- Invited speaker, Casa della cultura 2018, Milan
- Invited Speaker for STEM Day at INGM, Milan
- Scientific Organizer of the European Biotech Week "Playground of the brain", at Humanitas University
- Invited speaker at Alternanza Scuola Lavoro, Humanitas University 2017

INVITED TALKS (selected talks from 2016 to present)

- "3D cultures and single-cell omics to model development and disease of the human brain" workshop, October 2024, Capri, Italy
- IGB Molecular Neurogenetics Institute of Genetics and Biophysics, CNR, 20th November 2023, Naples, Italy
- "First European Choroid Plexus Scientific Forum (ECSF)", 5-7th November 2023, Heidelberg
- INMED, Mediterranean Institute of Neurobiology, 16-17th October, 2023, Marseille, France
- Kavli Institute for Systems Neuroscience, 5th October, 2023, Trondheim, Norway
- "Seaver Autism Center Seminar Series", September 6th, 2023, NYC, USA
- "3D human models of choroid plexus" IZN, Heidelberg, July 19th, 2023, Heidelberg, Germany
- Plenary Lecture at the "Brain organoids in neurological disorders" course, PRBB, 1-6th July, 2023, Barcelona, Spain
- RBSCDB, Royal Belgian Society of Stem Cell and Developmental Biology, "Neural Stem Cell and Cortex Development", 9th June, Liege, Belgium
- FENS Regional Meeting, 3-5th May, 2023, Algarve, Portugal
- "International Winter Neuroscience Conference", Solden, Austria, 11-15th April 2023
- Institute de La Vision, Paris, November 9th, 2022
- EMBO Workshop "Molecular and physiological basis of behavioural/cognitive defects in Neurodevelopmental disorders", 31st October-3rd November, Bangaluru, India.
- Single-molecule Sequencing Technologies & Applications Symposium Human Technopole, September 14th-15th 2022
- Symposium SySTEM CELL Wien, March 25-28, 2022
- -"3D Human Brain organoids to investigate development and disease", School of Neuroscience Como Lake, October 18th- 22th 2021.
- "Cerebral cortical development and disease in utero and outside", Wide Neuro Seminar Series, (host: University Liege), April 2021.

- "An electrical take on the development of the cerebral cortex: implications for infantile epilepsies", University of Montreal, Montreal, Canada, November 2020.
- "An electrical take on the development of the cerebral cortex: implications for developmental encephalopathies", Neuromatch 3.0, October 2020.
- "Making or breaking in the cerebral cortex: investigating cortical neuron development in physiological and pathological conditions", CNR Neuroscience Institute, Milan, Italy, November 2019.
- "Investigating the role of HCN1 channels in cerebral cortex development", University of Duisburg-Essen, Essen, Germany, January 2019.
- "Molecular logics of neuronal diversity and microcircuits assembly in the cerebral cortex", Università degli Studi di Milano, Milan, Italy, October 2018.
- "Decoding neuronal diversity of the cerebral cortex in development and disease", Trinity Hall, University of Cambridge, Cambridge, UK, September 2018.
- "Generating Cell Type Diversity in the Cerebral Cortex", 20th International Neuroscience Winter Conference, Solden, Austria, April 2018.
- "Decoding neuronal diversity in the mammalian cerebral cortex: a journey through development and disease", Neuroscience Institute Cavalieri Ottolenghi, Turin, Italy, March 2018.
- "Molecular mechanisms of cortical assembly in the cerebral cortex", Reverse Engineering the Developing (RED) Brain Conference, Geneve, Switzerland, September 2017.
- "Building and maintaining neuronal diversity of the cerebral cortex", Dino Ferrari Centre, Neuroscience Section, Department of Pathophysiology and Transplantation, University of Milan, Neurology Unit, IRCCS Foundation Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy, April 2017.
- "Molecular logics of neuronal diversity and local microcircuits assembly in the cerebral cortex", Allen Institute Showcase Symposium 2016, Seattle WA, USA, December 2016.
- "Molecular logics of neuronal diversity and local microcircuit assembly in the neocortex", University Medical Center of the Johannes Gutenberg University, Mainz, Germany, October 2016.
- "Molecular logics of neuronal diversity and local microcircuits assembly in the cerebral cortex", Humanitas University, Milan, Italy, June 2016.
- "Understanding cortical microcircuit assembly in development and disease", Max-Planck Institute of Neurobiology, Munich, Germany, April 2016.
- "Molecular mechanisms for local microcircuit assembly of the cerebral cortex in development and disease", Institute of Neuronal Cell Biology, Technical University Munich, Munich, Germany, April 2016.
- "Molecular mechanisms for local microcircuit assembly of the cerebral cortex in development and disease", European Molecular Biology Laboratory Monterotondo, Rome, Italy, March 2016.
- "Molecular mechanisms for local microcircuit assembly of the cerebral cortex in development and disease", Columbia University Medical Center, New York NY, USA, March 2016.
- "Molecular mechanisms for local microcircuit assembly of the cerebral cortex in development and disease", Division of Biological Sciences, UC San Diego, San Diego CA, USA, March 2016.
- "Understanding cortical microcircuit assembly in development and disease", Max Planck Research Group Leader Selection Symposium, Berlin, Germany, February 2016.
- "Molecular Mechanisms of Local Microcircuit Assembly in the Cerebral Cortex", Department of Fundamental Neurosciences, University of Lausanne, Lausanne, Switzerland, February 2016.