CURRICULUM VITAE

NAME	POSITION TITLE
Carmine Gentile	**Lecturer and Group Leader, University of Technology Sydney**
EMAIL	University of Technology Sydney Profile
Carmine.Gentile@uts.edu.au	**https://www.uts.edu.au/staff/carmine.gentile**

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD
University of Pisa, Italy	**B.Sc./M.Sc.**	1999-2004	Chemistry & Pharmaceutical Technologies
University of Pisa, Italy	**Pharm.D.**	2004	Pharmacy
Medical University of South Carolina, Charleston, SC, USA	**Ph.D.**	2008-13	Biomedical Sciences – Cardiovascular

Other trainings received:

INSTITUTION AND LOCATION	YEAR(s)	FIELD OF STUDY
Rice University, Houston, TX, USA	2006	Workshop:**Advances in Tissue Engineering**
STEMCELL Tech, Vancouver, CA	2010	**Human Pluripotent Stem Cell Training**

A. Professional Experience:

2004 Apr/Oct	**Graduate Student**, Institute of Clinical Physiology/Italian National Research Council, CNR) & University of Pisa, Italy (Supervisors: Dr. Claudio Domenici, Prof. Arti Ahluwalia, Dr. Giovanni Vozzi and Prof. Enrica Martinotti)
2005 Feb/Sep	**Pharmacist**, Farmacia "José Eugenio Piñero Correa", Canary Islands, Spain
2006 Dec	**Research Associate**, University of Pisa, Italy (Supervisor: Dr. Giovanni Vozzi)
2006 - 2008	**Research Fellow**, Cell Biology and Anatomy, MUSC, Charleston, SC, USA (Supervisors: Prof. Christopher J. Drake and Dr. Vladimir Mironov)
2006 Oct - Nov	**Visiting Fellow**, University of Leipzig, Germany (Supervisor: Prof. Augustinus Bader)
2007 Oct - Nov	**Visiting Research Fellow**, Institute for Membrane Technology/Italian National Research Council, CNR), Arcavacata, Italy (Supervisor: Dr. Loredana De Bartolo)
2008 - 2013	**Graduate Assistant**, Department of Regenerative Medicine and Cell Biology, MUSC, Charleston, SC, USA (Mentor: Prof. Christopher J. Drake)
2011 - 2013	**Supplemental Instructor** for Medicinal Chemistry II and III, Pharmaceutical Chemistry and Pharmacogenomics I and II, College of Pharmacy, MUSC, Charleston, SC, USA
2013 - 2016	**Postdoctoral Research Fellow**, Free Radical Group, The Heart Research Institute, Newtown, NSW, Australia (Supervisor: Prof. Michael J. Davies)
2013 – 2016	**Conjoint Lecturer (Level B),** Sydney Medical School, University of Sydney, Australia
2014 - present	**Consultant** for Hoffmann-La Roche, Basel, CH
2016 - present	**Visiting Research Fellow,** Department of Medicine, Cardiovascular Institute, Beth Israel Deaconess Medical Center – Harvard Medical School (Supervisor: Prof. Federica del Monte)
2017 - 2019	**Lecturer,** Sydney Medical School, University of Sydney, Australia (Supervisor: Prof. Gemma Figtree)
2018	**Cicada Innovations Medical Device Commercialization Training Program (Graduate)**
2019/today	**Lecturer (tenure),** School of Biomedical Engineering, University of Technology, Sydney

Honors and Awards

2018 Sydney Medical School (University of Sydney) International Symposium on Experimental & Clinical Cardiovascular Medicine, ECR Travel Support; **2017** Heart Research Australia Award for Discovery Biomedical Research; **2016** Ian Potter Foundation Award; **2016** Australian Atherosclerosis Society (AAS) Trust Travel Grant; **2015** Young Investigator Award (Society for Redox Biology and Medicine Annual Meeting); **2015** Charles Perkins Centre Young Achiever Award (Heart Research Institute); **2014** ECR Travel Award (Society for Free Radical Biology and Medicine Annual Meeting); **2013** First prize for outstanding oral presentation by an early career researcher at the Australian Vascular Biology Society Meeting; **2013-2015** The Marcus Blackmore Postdoctoral Research Fellowship; **2011-2013** American Heart Association (AHA) Pre-doctoral Fellowship; **1999-2004** Fellowship at the University of Pisa, Italy

Reviewer of Scientific International Journals

Circulation; Scientific Reports; Acta Biomateralia; Cells Tissues Organs; Colloids and Surfaces B: Biointerfaces; Journal of Tissue Engineering and Regenerative Medicine

Media output

2020 Channel 7News Interview; 2020 Catholic Weekly Interview; 2019 Daily Telegraph Interview; Featured on NSW Health webpage (2018); Featured on TEDx for the University of Sydney (2018); Key innovation and discovery at the University of Sydney (2018); University of Sydney/SAM Interview (2018); University of Sydney Intranet Interview (2018); ABC Catalyst (2017); ABC News 24 TV Interview (2016); ABC Radio Interview (2016).

B. Top Selected Peer-Reviewed Publications Relevant to the Application (560 citations, h-index = 11):

- **Gentile, C**., Fleming, P.A., Mironov, V., Argraves, K.M., Argraves, W.S., Drake, C. J. "VEGF-mediated vascular fusion and the generation of a vascular micro-tissues", Dev Dyn. 2008 Oct;237(10):2918-25. **JOURNAL COVER IMAGE.**
- Mironov V., Zhang J., **Gentile C.,** Brakke K., Trusk T., Jakab K., Forgacs G., Kasyanov V., Visconti R.P., Markwald R.R., "Designer blueprint for vascular trees: morphology evolution of vascular tissue constructs," Virtual and Physical Prototyping, v.4 (2), 2009, p. 63-74.
- Fleming PA, Argraves WS, **Gentile C**, Neagu A, Forgacs G, Drake CJ. "Fusion of uniluminal vascular spheroids: a model for assembly of blood vessels", Dev Dyn. 2010 Feb;239(2):398-406. **JOURNAL COVER IMAGE.**
- Visconti RP, Kasyanov V, **Gentile C,** Zhang J, Markwald RR, Mironov V. "Towards organ printing: engineering an intra-organ branched vascular tree", Expert Opin Biol Ther. 2010 Mar;10(3):409-20.
- **Gentile, C.** "Filling the Gaps between the In Vivo and In Vitro Microenvironment: Engineering of Spheroids for Stem Cell Technology" Curr Stem Cell Res Ther, 2016: 11 (8), 652-665. *Invited review for Special Issue* "New approach in stem cell technology and innovative biomaterial for tissue engineering and regenerative medicine proposed".
- Polonchuk, L., Chabria, M., Badi, L., Hoflack, J.C., Figtree, G., M., Davies, M.J., **Gentile, C.** "Cardiac spheroid co-cultures as promising in vitro models to study the human heart microenvironment", Scientific Reports 2017 7 (1), 7005.
- Figtree, G., Bubb, K., Tang, O., Kizana, E., **Gentile, C.** "Vascularized cardiac spheroids as novel 3D in vitro models to study cardiac fibrosis", Cells Tissues Organs 2017 204 (3-4), 191-198. *Invited article for Special Issue on "New advanced biomaterials for tissue and organ regeneration/repair".*
- Mawad, D., Figtree, G., **Gentile, C.** "Current Technologies Based on the Knowledge of the Stem Cells Microenvironments", Stem Cell Microenvironments and Beyond 2017 245-262.
- Sharma, P., Figtree, G., **Gentile, C.** "The Hypoxic Microenvironment of Stem Cells and their Progenies in the Heart", J Stem Cell Res Ther 2017 2 (6), 00084.
- Jiang, L., **Gentile, C.** Lauto, A., Cui, C., Song, Y., Romeo, T., Silva, S.M., Tang, O., Sharma, P., Figtree, G., Gooding, J.J., Mawad, D., "Versatile Fabrication Approach of Conductive Hydrogels via Copolymerization with Vinyl Monomers", ACS applied materials & interfaces 2017 9 (50), 44124-44133.
- Campbell, M., Chabria, M., Figtree, G., Polonchuk, L., **Gentile, C.** "Stem Cell-Derived Cardiac Spheroids as 3D In Vitro Models of the Human Heart Microenvironment", Humana Press/Springer 2018 *Book Chapter*.
- Campbell, Surija, L., Peceros, K., Sharma, P., Figtree, G., **Gentile, C.** "Stem Cell Spheroids", Elsevier 2019 *Book Chapter for the Encyclopaedia of Tissue Engineering and Regenerative Medicine International Society*.
- Hansen, T., S Saleh, S., Figtree, G.A., **Gentile, C. "**The Role of Redox Signalling in Cardiovascular Regeneration" *Book Chapter of* Oxidative Stress in Heart Diseases, 19-37, 2019.

C. Research Support/Grants (total >2.5million $)

American Heart Association Predoctoral Fellowship (Principal Investigator, 2011-13); **Marcus Blackmores Fellowship** (Principal Investigator, 2013-16); **The Bosch Institute/University of Sydney Translational Grant-In-Aid**, (Co-Investigator, 2013-14); **Ian Potter Foundation Award** (Principal Investigator, 2016-19); **University of Sydney Kickstart Grant** (Principal Investigator, 2017-18); **National Health and Medical Research Council Project Grant** (Chief Investigator F, 2017-20); **University of Sydney/Sydney Medical School Foundation/Cardiothoracic Surgery Research Grant Scheme** (Principal Investigator, 2017-20); **University of Sydney/Commercialisation Office** (Principal Investigator) 2017-18; **University of Sydney/Sydney Medical School/Industry Engagement Seed Fund** (Principal Investigator, 2017-19); **Catholic Archdiocese of Sydney Grant for Adult Stem Cell Research** (Principal Investigator, 2020)