

Prof. FRANCESCO CURCIO, MD. Full Professor of Clinical Pathology
Dipartimento di Area Medica. Università di Udine - School of Medicine
Direrctor, Dipartimento di Medicina di Laboratorio, University of Udine Teaching Hospital.

CURRICULUM VITAE SUMMARY

Medical Degree, University of Napoli Medical School, “summa cum laude”, October 1981.

Specialty Degree in “Biologia Clinica (Clinical Biology)”, July 1985.

APPOINTMENTS

- 3/86-11/88: Visiting Fellow, Laboratory of Genetics, NCI, NIH, Bethesda, MD, USA
- 6/89-7/89 and 6/90-7/90: Guest Researcher, Gene Expression Program, EMBL, Heidelberg.
- 4/92-10/92: Visiting Scientist, Laboratory of Genetics, NCI, NIH, Bethesda, MD, USA
- 6/06-6/09 Scientific Coordinator of the Italian Space Agency Project “From Molecules to Man” (57 research groups, 10 industries and a total 31.000.000 Euro grant).
- 2008-2014: Full Professor of General Pathology, University of Udine Medical School
- 2014-To date: Full Professor of Clinical Pathology, University of Udine Medical School
- 2001-To date: Director, Unit of Cellular and Molecular Diagnosis and Therapy, University of Udine Medical Center, Udine, Italy.
- 2009-To date: Director, Institute of Clinical Pathology, University of Udine Medical Center, Udine, Italy.
- 2009-To date: Chairman, Department of Laboratory Medicine and Pathology, University of Udine Medical Center, Udine, Italy.
- 2012-2017: Dean, School of Medicine, University of Udine.
- 2017-To Date: Delegate for Medical Education in Medicine and Health-Care Professions.

SCIENTIFIC SOCIETY MEMBERSHIP

- Italian Society of Pathology and Traslational Medicine (SIPMeT) – Past-President;
- Italian Society of Clinical Pathology and Laboratory Medicine (SIPMeL) – Past-VicePresident;
- World Association of Societies of Pathology and Laboratory Medicine (WASPaLM) – Past-Secretary Treasurer;
- Association for Molecular Pathology (AMP);
- Italian Society of Clinical Biochemistry and Clinical Molecular Biology (SIBioC).

SELECTED PAPERS (last 5 years, full papers only):

- 1) Acellular bone colonization and aggregate culture conditions diversely influence murine periosteum mesenchymal stem cell differentiation potential in long-term in vitro osteoinductive conditions. Ferro F, Spelat R, D'Aurizio F, Falini G, De Pol I, Pandolfi M, Beltrami AP, Cesselli D, Beltrami CA, Curcio F. Tissue Eng Part A. 2012 Jul;18(13-14):1509-19. Epub 2012 Jun 13.
- 2) The impact of long-term exposure to space environment on adult mammalian organisms: a study on mouse thyroid and testis. Masini MA, Albi E, Barmo C, Bonfiglio T, Bruni L, Canesi L, Cataldi S, Curcio F, D'Amora M, Ferri I, Goto K, Kawano F, Lazzarini

R, Loreti E, Nakai N, Ohira T, Ohira Y, Palmero S, Prato P, Ricci F, Scarabelli L, Shibaguchi T, Spelat R, Strollo F, Ambesi-Impiombato FS. *PLoS One*. 2012;7(4):e35418. Epub 2012 Apr 25

3) Dental Pulp Stem Cells Differentiation Reveals New Insights in Oct4A Dynamics. Ferro F, Spelat R, D'Aurizio F, Puppato E, Pandolfi M, Beltrami AP, Cesselli D, Falini G, Beltrami CA, Curcio F. *PLoS One*. 2012;7(7):e41774. Epub 2012 Jul 23.

4) Serine 111 phosphorylation regulates OCT4A subcellular distribution and degradation. Spelat R, Ferro F, Curcio F. *J Biol Chem*. 2012 Sep 28. [Epub ahead of print]

5) Observing the mouse thyroid sphingomyelin under space conditions: a case study from the MDS mission in comparison with hypergravity conditions. Albi E, Curcio F, Spelat R, Lazzarini A, Lazzarini R, Loreti E, Ferri I, Ambesi-Impiombato FS. *Astrobiology*. 2012 Nov;12(11):1035-41. doi: 10.1089/ast.2012.0881. Epub 2012 Oct 19.

6) Isolation and characterization of human dental pulp derived stem cells by using media containing low human serum percentage as clinical grade substitutes for bovine serum. Ferro F, Spelat R, Beltrami AP, Cesselli D, Curcio F. *PLoS One*. 2012;7(11):e48945. doi: 10.1371/journal.pone.0048945. Epub 2012 Nov 14.

7) Loss of parafollicular cells during gravitational changes (microgravity, hypergravity) and the secret effect of pleiotrophin. Albi E, Curcio F, Spelat R, Lazzarini A, Lazzarini R, Cataldi S, Loreti E, Ferri I, Ambesi-Impiombato FS. *PLoS One*. 2012;7(12):e48518. doi: 10.1371/journal.pone.0048518. Epub 2012 Dec 19.

8) Adult stem cells in therapy: a practical approach. Curcio F, Fontanini A, Cattaruzzi G, Vitrani F, Moretti M, Campolo M, Soldati A, Ambesi-Impiombato FS (2012). *Faseb J*, vol. 26

9) Retinol binding protein as early marker of fetal growth restriction in first trimester maternal serum. Fruscalzo A, Biasioli A, Londero AP, Ceraudo M, Stel G, Bertozzi S, Marchesoni D, Driul L, Curcio F. *Gynecol Endocrinol*. 2013 Apr;29(4):323-6. doi: 10.3109/09513590.2012.743013. Epub 2013 Jan 25.

10) Nuclear Lipid Microdomain as Place of Interaction between Sphingomyelin and DNA during Liver Regeneration. Albi E, Lazzarini A, Lazzarini R, Floridi A, Damaskopoulou E, Curcio F, Cataldi S. *Int J Mol Sci*. 2013 Mar 25;14(4):6529-41. doi: 10.3390/ijms14046529.

11) High prevalence of *Chlamydia psittaci* subclinical infection in Italian patients with Sjogren's syndrome and parotid gland B-cell lymphoma. Fabris M., Dolcetti R., Pasini E., Quartuccio L., Pontarini E., Ponzoni M., Scott C.A., Curcio F., De Vita S. (2013). *FASEB J*, vol. 27

12) Effects of Ultraviolet Radiation on FRTL-5 Cell Growth and Thyroid-Specific Gene Expression. Baldini E, D'Armiento M, Sorrenti S, Del Sordo M, Mocini R, Morrone S, Gnessi L, Curcio F, Ulisse S. *Astrobiology*. 2013 May 22. [Epub ahead of print]

13) Minimal Perfusion Flow for Osteogenic Growth of Mesenchymal stem Cells on Lattice Scaffolds. Campolo M, Curcio F and Soldati A. *AICHE J*, 2013 Feb 25. [Epub ahead of print]

14) Ischemia-modified albumin in pregnancy. Rossi A, Bortolotti N, Vescovo S, Romanello I, Forzano L, Londero AP, Ambrosini G, Marchesoni D, Curcio F. *Eur J Obstet Gynecol Reprod Biol*. 2013 Oct;170(2):348-51. doi: 10.1016/j.ejogrb.2013.06.037. Epub 2013 Jul 23.

15) A firmer understanding of the effect of hypergravity on thyroid tissue: cholesterol and thyrotropin receptor. Albi E, Curcio F, Lazzarini A, Floridi A, Cataldi S, Lazzarini R, Loreti E, Ferri I, Ambesi-Impiombato FS. *PLoS One*. 2014 May 27;9(5):e98250.

- 16) Reinterpretation of Mouse Thyroid Changes under Space Conditions: The Contribution of Confinement to Damage. Albi E, Ambesi-Impiombato FS, Lazzarini A, Lazzarini R, Floridi A, Cataldi S, Loreti E, Ferri I, Curcio F. *Astrobiology*. 2014 Jun 19. [Epub ahead of print]
- 17) Critical Role for the Protons in FRTL-5 Thyroid Cells: Nuclear Sphingomyelinase Induced-Damage. Albi E, Perrella G, Lazzarini A, Cataldi S, Lazzarini R, Floridi A, Ambesi-Impiombato FS, Curcio F. *Int J Mol Sci*. 2014 Jun 27;15(7):11555-65.
- 18) Second trimester amniotic fluid retinol in patients developing preeclampsia. Fruscalzo A, Londero AP, Biasizzo J, Bortolotti N, Bertozzi S, Curcio F, Marchesoni D, Driul L. *Arch Gynecol Obstet*. 2014 Sep 24. [Epub ahead of print]
- 19) How microgravity changes galectin-3 in thyroid follicles. Albi E, Curcio F, Lazzarini A, Floridi A, Cataldi S, Lazzarini R, Loreti E, Ferri I, Ambesi-Impiombato FS. *Biomed Res Int*. 2014;2014:652863. doi: 10.1155/2014/652863. Epub 2014 Sep 11.
- 20) Nuclear lipid microdomain as resting place of dexamethasone to impair cell proliferation. Cataldi S, Codini M, Cascianelli G, Tringali S, Tringali AR, Lazzarini A, Floridi A, Bartoccini E, Garcia-Gil M, Lazzarini R, Ambesi-Impiombato FS, Curcio F, Beccari T, Albi E. *Int J Mol Sci*. 2014 Oct 31;15(11):19832-46. doi: 10.3390/ijms151119832.
- 21) Gentamicin arrests cancer cell growth: the intriguing involvement of nuclear sphingomyelin metabolism. Codini M, Cataldi S, Ambesi-Impiombato FS, Lazzarini A, Floridi A, Lazzarini R, Curcio F, Beccari T, Albi E. *Int J Mol Sci*. 2015 Jan 22;16(2):2307-19
- 22) Very long chain fatty acid sphingomyelin in nuclear lipid microdomains of hepatocytes and hepatoma cells: can the exchange from c24: 0 to c16: 0 affect signal proteins and vitamin d receptor? Lazzarini A, Macchiarulo A, Floridi A, Coletti A, Cataldi S, Codini M, Lazzarini R, Bartoccini E, Cascianelli G, Ambesi-Impiombato FS., Beccari , CurcioF, Albi E. *Mol Biol Cell*. E15-02-0071, 2015.
- 23) Evaluating the SERCA2 and VEGF mRNAs as Potential Molecular Biomarkers of the Onset and Progression in Huntington's Disease. F. Cesca, E. Bregant, B. Peterlin, M. Zadel, G. Dubsky de Wittenau, G. Siciliano, R. Ceravolo, L. Petrozzi, G. Pauletto, L. Verriello, P. Bergonzi, G. Damante, G. Barillari, B. Lucci, F. Curcio, I.R. Lonigro. *PLoS One* e0125259. Epub 2015 April 27.
- 24) Treatment with belimumab restores B cell subsets and their expression of B cell activating factor receptor in patients with primary Sjogren's syndrome. Pontarini E, Fabris M, Quartuccio L, Cappeletti M, Calcaterra F, Roberto A, Curcio F, Mavilio D, Della Bella S, De Vita S. *Rheumatology (Oxford)*. 2015 Mar 3. pii: kev005. [Epub ahead of print].
- 25) C-Kit Positive Cells from Failing Human Hearts: Role of Culturing Media on Cardiomyogenic Potentials. A. Francesconi, G. Paparella, B. Frossi, E. Del Terra, F.S. Ambesi Impiombato, F. Curcio. *J Cardiovas Med & Cardiol* 2, 2 021-028, 2015.
- 26) Second trimester maternal plasma and amniotic fluid adipokines in women who will develop gestational diabetes mellitus. A Fruscalzo, AP Londero, J Biasizzo, F Curcio, S Bertozzi, D Marchesoni, L Driul. *Gynecological Endocrinology* 31 (12), 934-938, 2015
- 27) Second trimester amniotic fluid retinol in patients developing preeclampsia. A Fruscalzo, AP Londero, J Biasizzo, N Bortolotti, S Bertozzi, F Curcio, D Marchesoni, L Driul. *Arch gynecol obst* 291 (4), 831-836, 2015
- 28) SAT0409 The New ERA of Anti-Phospholipid Antibodies: from Immunoenzymatic to Chemiluminescence Methods. M Fabris, N Tanzi, R Giacomello, M Marangone, F Curcio, E Tonutti. *Annals of the Rheumatic Diseases* 74 (Suppl 2), 807-807, 2015

- 29) The Detection of Anti-adalimumab Antibodies in a Series of Inflammatory Polyarthritis: three ELISA Methods Compared. M Fabris, C Pistis, A Zabotti, L Picco, F Curcio, E Tonutti, S De Vita. *Drug metabolism letters* 9 (2), 132-137, 2015
- 30) Anti-zinc transporter protein 8 autoantibodies significantly improve the diagnostic approach to type 1 diabetes: an Italian multicentre study on paediatric patients. M Fabris, S Zago, M Liguori, MT Trevisan, M Zanatta, A Comici, G Zanette, E Carlin, F Curcio, E Tonutti *Autoimmunity Highlights* 6 (1-2), 17-22, 2015
- 31) Treatment with belimumab restores B cell subsets and their expression of B cell activating factor receptor in patients with primary Sjogren's syndrome. E Pontarini, M Fabris, L Quartuccio, M Cappeletti, F Calcaterra, A Roberto, F Curcio, D Mavilio, S Della Bella, S De Vita. *Rheumatology* 54 (8), 1429-1434, 2015.
- 32) The-308 TNF α and the-174 IL-6 promoter polymorphisms associate with effective anti-TNF α treatment in seronegative spondyloarthritis. M Fabris, L Quartuccio, C Fabro, S Sacco, S Lombardi, R Ramonda, D Biasi, D Punzi, S Adami, I Olivieri, F Curcio, S De Vita. *The pharmacogenomics journal*, 16, 238-242, June, 2016
- 33) e-Cadherin in 1-Methyl-4-phenyl-1, 2, 3, 6-tetrahydropyridine-Induced Parkinson Disease. S Cataldi, M Codini, S Hunot, FP Légeron, I Ferri, P Siccu, A Sidoni, FS Ambesi-Impiombato, T Beccari, F Curcio, E Albi. *Mediators of Inflammation* 2016
- 34) Combined Oral Contraceptives Increase High-Sensitivity C-Reactive Protein but Not Haptoglobin in Female Athletes. S Cauci, MP Francescato, F Curcio. *Sports Medicine*, 1-11, 2016.
- 35) Hypovitaminosis D3, Leukopenia, and Human Serotonin Transporter Polymorphism in Anorexia Nervosa and Bulimia Nervosa. A Tasegian, F Curcio, L Dalla Ragione, F Rossetti, S Cataldi, M Codini, FS Ambesi-Impiombato, T Beccari, E Albi. *Mediators of inflammation*. 2016.
- 36) Why high cholesterol levels help hematological malignancies: role of nuclear lipid microdomains. M Codini, S Cataldi, A Lazzarini, A Tasegian, MR Ceccarini, A Floridi, R Lazzarini, FS Ambesi-Impiombato, F Curcio, T Beccari, E Albi. *Lipids in health and disease* 15 (1), 1, 2016
- 37) Detection within a Neuroendocrine Tumor of High Levels of B-Lymphocyte Stimulator (BLyS) Correlates with a Greater Disease Severity. F Grimaldi, C Motta, C Cipri, V Tonelli, C Pistis, E Tonutti, F Curcio, M Fabris, F Vescini. *Neuroendocrinology* 103, 46-47, 2016
- 38) Exploring the Possible Prognostic Role of B-Lymphocyte Stimulator (BLyS) in the Follow-up of Patients with Neuroendocrine Tumors. F Grimaldi, C Motta, C Cipri, V Tonelli, C Pistis, E Tonutti, F Curcio, M Fabris, M Vescini. In *Metastasis and Tumor Progression, Neoplasia of Endocrine Tissue, Therapies for Cancer, and Tumorigenesis*. Ed. The Endocrine Society, 2016
- 39) Effects Of Uphill Only Marathon On Biomarkers Of Muscle And Cardiac Damage: 1665 Board# 318 June 2, 8: 00 AM-9: 30 AM. N Giovanelli, A Da Ponte, G Antonutto, D Nigris, F Curcio, P Cortese, S Lazzer. *Med Sci Sports Exerc.* 2016 May;48(5 Suppl 1):462, 2016
- 40) Combined oral contraceptives increase high-sensitivity C-reactive protein but not haptoglobin in female athletes. S Cauci, MP Francescato, F Curcio. *Sports Medicine* 47 (1), 175-185, 2017
- 41) Radiation and Thyroid Cancer. E Albi, S Cataldi, A Lazzarini, M Codini, T Beccari, FS Ambesi-Impiombato. *Int. J. Mol. Sci*, 18 (5), 911, 2017

- 42) Exploring the plasmatic platelet-activating factor acetylhydrolase activity in patients with anti-phospholipid antibodies. M Fabris, A Cifù, C Pistis, M Siega-Ducaton, DE Fontana, R Giacomello, E Tonutti, F Curcio. *Autoimmunity Highlights* 8 (1), 5, 2017
- 43) Impact of Gravity on Thyroid Cells. Albi E, Krüger M, Hemmersbach R, Lazzarini A, Cataldi S, Codini M, Beccari T, Ambesi-Impiombato FS, Curcio F. *Int J Mol Sci.* 2017 May 4;18(5).
- 44) Characterization of the Proinflammatory Profile of Synovial Fluid-Derived Exosomes of Patients with Osteoarthritis. Domenis R, Zanutel R, Caponnetto F, Toffoletto B, Cifù A, Pistis C, Di Benedetto P, Causero A, Pozzi M, Bassini F, Fabris M, Niazi KR, Soon-Shiong P, Curcio F. *Mediators Inflamm.* Epub 2017 May 28.
- 45) VDR independent induction of acid-sphingomyelinase by 1,23(OH)₂ D3 in gastric cancer cells: Impact on apoptosis and cell morphology. Albi E, Cataldi S, Ferri I, Sidoni A, Traina G, Fettucciari K, Ambesi-Impiombato FS, Lazzarini A, Curcio F, Ceccarini MR, Beccari T, Codini M. *Biochimie.* 2017 Nov 17. pii: S0300-9084(17)30306-1.
- 46) Changes in cardiac and muscle biomarkers following an uphill-only marathon. Da Ponte A, Giovanelli N, Antonutto G, Nigris D, Curcio F, Cortese P, Lazzar S. *Res Sports Med.* 2017 Oct 23:1-12.
- 47) Serum Interleukin-10 Levels Correlate with Cerebrospinal Fluid Amyloid Beta Deposition in Alzheimer Disease Patients. D'Anna L, Abu-Rumeileh S, Fabris M, Pistis C, Baldi A, Sanvilli N, Curcio F, Gigli GL, D'Anna S, Valente M. *Neurodegener Dis.* 2017;17(4-5):227-234.
- 48) Neutral Sphingomyelinase Behaviour in Hippocampus Neuroinflammation of MPTP-Induced Mouse Model of Parkinson's Disease and in Embryonic Hippocampal Cells. S. Cataldi, C. Arcuri, S. Hunot, F.-P. Légeron, C. Mecca, M. Garcia-Gil, A. Lazzarini, M. Codini, T. Beccari, A. Tasegian, B. Fioretti, G. Traina, F.S. Ambesi-Impiombato, F. Curcio, E. Albi. *Mediators Inflamm.* Epub 2017, Nov 16.
- 49) Mouse Thyroid Gland Changes in Aging: Implication of Galectin-3 and Sphingomyelinase. G. Traina, S. Cataldi, P. Siccu, E. Loreti, I. Ferri, A. Sidoni, M. Codini, C. Gizzi, M. Sichetti, F.S. Ambesi-Impiombato, T. Beccari, F. Curcio, E. Albi. *Mediators Inflamm.* Epub 2017, Dec 11.
- 50) Localization of nuclear actin in nuclear lipid microdomains of liver and hepatoma cells: Possible involvement of sphingomyelin metabolism. S. Cataldi, A. Lazzarini, M. Codini, G. Cascianelli, A. Floridi, E. Bartocchini, M.R. Ceccarini, F.S. Ambesi-Impiombato, T. Beccari, F. Curcio, E. Albi. *The EuroBiotech J.* 2017;1(2):155-8.
- 51) Effect of Vitamin D in HN9.10e Embryonic Hippocampal Cells and in Hippocampus from MPTP-Induced Parkinson's Disease Mouse Model. Cataldi S, Arcuri C, Hunot S, Mecca C, Codini M, Laurenti ME, Ferri I, Loreti E, Garcia-Gil M, Traina G, Conte C, Ambesi-Impiombato FS, Beccari T, Curcio F, Albi E. *Front Cell Neurosci.* 2018 Feb 7;12:31.
- 52) A versatile method for gene dosage quantification: multiplex PCR and single base extension for copy number and gene-conversion identification of SMN genes. Radovic S, Dubsky De Wittenau G, Mandl N, Betto E, Curcio F, Morgante M, Lonigro IR. *J Biol Regul Homeost Agents.* 2018 Jan-Feb;32(1):115-121.
- 53) Changes in cardiac and muscle biomarkers following an uphill-only marathon. A Da Ponte, N Giovanelli, G Antonutto, D Nigris, F Curcio, P Cortese, S. Lazzar. *Research in Sports Medicine* 2018. 26 (1), 100-111.

- 54) Toll-like Receptor-4 Activation Improves the Immunosuppressive Properties of Cancer Cells-Derived Exosomes. R Domenis, D Marino, A Cifu, M Fabris, KR Niazi, P Soon-Shiong, F. Curcio. *FASEB JOURNAL*. 2018. 32 (1).
- 55) Prognostic role of alkaline phosphatase (ALP) and lactate dehydrogenase (LDH) in metastatic breast cancer (MBC) patients: First clues for cost-effective biomarkers. G Pelizzari, L Gerratana, D Basile, MG Vitale, M Bartoletti, C Lisanti, V. Fanotto, A. Liguori, M. Cinausero, C. Bozza, E. Poletto, G. Pascoletti, St. Russo, C. Andretta, M. Bonotto, M. Mansutti, A. M. Minisini, F. Curcio, G. Fasola, F. Puglisi. *Journal of Clinical Oncology* 2018. 36 (15_suppl), e13079-e13079
- 56) A fast, nondestructive, low-cost method for the determination of hematocrit of dried blood spots using image analysis. F Del Ben, J Biasizzo, F Curcio. *Clinical Chemistry & Laboratory Medicine* 2018. 755
- 57) Pro inflammatory stimuli enhance the immunosuppressive functions of adipose mesenchymal stem cells-derived exosomes R Domenis, A Cifù, S Quaglia, C Pistis, M Moretti, A Vicario, PC Parodi, *Scientific Reports* 2018. 8 (1).
- 58) Nuclear Lipid Microdomains Regulate Daunorubicin Resistance in Hepatoma Cells. M Codini, C Conte, S Cataldi, C Arcuri, A Lazzarini, M Ceccarini, F Patria, A. Floridi, C. Mecca, F.S. Ambesi-Impiombato, T. Beccari, F. Curcio, E. Albi. *International journal of molecular sciences*. 2018. 19 (11), 3424
- 59) Comparison between procalcitonin and C-reactive protein to predict blood culture results in ICU patients. CF Bassetti M, Russo A, Righi E, Dolso E, Merelli M, Cannarsa N, D'Aurizio F, Sartor A. *Crit Care*. 2018. 22 (1), 252.
- 60) Role of procalcitonin in bacteremic patients and its potential use in predicting infection etiology M Bassetti, A Russo, E Righi, E Dolso, M Merelli, F D'Aurizio, A Sartor, F Curcio. *Expert review of anti-infective therapy* 2019. 17 (2), 99-105.
- 61) Do circulating exosomes interfere with vedolizumab efficacy in IBD patients? R Domenis, A Cifu', M Fabris, G Scardino, M Zilli, M Marino, F Curcio. *Journal of Crohn's and Colitis*. 2019. 13 (Supplement_1), S115-S116

PATENTS

- 62) "Linea cellulare tiroidea". F.S. Ambesi-Impiombato, F. Curcio and G. Perrella. Brevetto italiano n° RM91A-000898
- 63) "A method for preparing an expanded culture and clonal strains of pancreatic, thyroid and parathyroid cells". H.G. Coon, F. Curcio and F.S. Ambesi Impiombato. US Patent N. 5,646,035 – Licenced to HCT, LLC.
- 64) "Cell culturing method for producing non transformed parotid cells." H.G. Coon, F. Curcio and F.S. Ambesi Impiombato. US Patent 5,849,584 – Ceduto ad HCT, LLC.
- 65) "Method of altering blood sugar levels in mammals by introducing expanded human pancreatic cells to the mammals." H.G. Coon, F. Curcio and F.S. Ambesi Impiombato. US Patent 5,780,299 – Licenced to HCT, LLC.
- 66) "Cell cultures of and cell culturing method for non transformed pancreatic, thyroid, parathyroid, parotid, liver and other human cells" F. Curcio, H.G. Coon and F.S. Ambesi Impiombato. US Patent 5,888,816 – Licenced to HCT, LLC.
- 67) "Cell culturing method and medium for producing expanded non-transformed human liver cells" F. Curcio, H.G. Coon and F.S. Ambesi Impiombato. US Patent N. 6,008,047 – Licenced to HCT, LLC..

- 68) "Cell culturing method and medium for producing expanded human pancreatic, thyroid, parathyroid, parotid, liver and other human cells cells and expanded cells produced." H.G. Coon, F. Curcio and F.S. Ambesi Impiombato. Estensione in Australia 687386 – Licenced to HCT, LLC.
- 69) "Cell culturing method and medium for producing expanded human pancreatic, thyroid, parathyroid, parotid, liver and other human cells cells and expanded cells produced." H.G. Coon, F. Curcio and F.S. Ambesi Impiombato. Estensione in Giappone 2813467 – Licenced to HCT, LLC.
- 70) "Cell culturing method and medium for non transformed pancreatic, thyroid, parathyroid, parotid, liver and other human cells." H.G. Coon, F. Curcio and F.S. Ambesi Impiombato. Estensione in Canada – Licenced to HCT, LLC.
- 71) "Cytoprotective biocompatible containment systems for biologically active materials and methods of making same." Soon-Shiong P., Desai N., Ron N., Sojomihardjo A., Heintz R., Curcio F. US Patent N. 6,495,161 – Licenced to VivoRx, Inc.
- 72) "Device for the suction of in vitro tissue culture media or other fluids." Ambesi-Impiombato F.S., Coon H.G., Curcio F. Patent Pending – Ceduto ad HCT, LLC.
- 73) "Method to identify and isolate stimulatory molecular species" Avvedimento V.E., Gabrielli A., Paternò R., Santillo M.R., Luchetti M., Svegliati S. and Curcio F. USA Provisional Patent n. 60/886,651 del 25/01/2007 – Licenced to Prius Diagnostics srl.
- 74) "Metodo diagnostico e prognostico per la diagnosi e la prognosi della linfoproliferazione nelle malattie immunomediate organo specifiche e/o di pertinenza trasfusionale" Italian patent application UD2007A000183 - PCT 30.09.2008.
- 75) "A continuous culturing device" F. Curcio and E. Berry - European Patent Application – Licenced to VivaBioCell SpA.
- 76) Immunodiagnostic method for diagnosing auto-immune Systemic Sclerosis (SSc) and Systemic Lupus Eritematosus (SLE). F. Curcio, G. Cattaruzzi, M. Moretti, F. Vitrani, R. Scorza – Patent application US Provisional n. 61/475,907 – Licenced to VivaBioCell SpA.
- 77) Automated cell culturing and harvesting device, G Cattaruzzi, M Moretti, A Sfiligoj, F Curcio, , F Curcio, US Patent App. 15/304,587
- 78) Scaffold for the growth of tissue in vivo. Curcio F. Patent n. EP2679665 A1. Licenced to VivaBioCell SpA. 2014.
- 79) Method of assembling a 3d tissue culturing scaffold F Curcio US Patent 20,160,108,358 – Licenced to VivaBioCell SpA.
- 80) Unitary 3D Culture Device. E Berry, F Curcio. US Patent 20,160,083,682 – Licenced to VivaBioCell SpA.
- 81) Unitary 3D Culture Device, E Berry, F Curcio, US Patent App. 14/960,506 – Licenced to VivaBioCell SpA.
- 82) Method of assembling a 3d tissue culturing scaffold, F Curcio, US Patent App. 14/960,509 – Licenced to VivaBioCell SpA.
- 83) Continuous culturing device, E Berry, F Curcio, US Patent 9,220,731 – Licenced to VivaBioCell SpA.
- 84) Systems, apparatus and methods for controlling a movement of a cell culture to optimize cell growth. F. Armani, G. Cattaruzzi, F. Curcio, M. Moretti, A. Sfiligoj. US Patent App. 2018/0072981 A1, 15 Mar 2018. Licenced to VivaBioCell Holdings LLC.
- 85) Continuous culturing device, F Curcio, US Patent 9,220,732 – Licenced to VivaBioCell SpA.

86) Unitary 3D culture device E Berry, F Curcio; US Patent App. 14/960,506. Licenced to VivaBioCell Holdings LLC.

87) Unitary 3D culture device E Berry, F Curcio; US Patent App. 10/087,414. Licenced to VivaBioCell Holdings LLC.

88) Method of assembling a 3D tissue culturing scaffold. F Curcio. US Patent App. 10/006,002. Licenced to VivaBioCell Holdings LLC.

89) Method of assembling a 3D tissue culturing scaffold. F Curcio. US Patent App. 14/960,509. Licenced to VivaBioCell Holdings LLC.

90) Systems, apparatus and methods for controlling a movement of a cell culture to optimize cell growth. F Armani, G Cattaruzzi, F Curcio, M Moretti, A Sfiligoj. US Patent App. 15/703,500. Licenced to VivaBioCell Holdings LLC.