

## Webinar: Florida's Innovation Hub

### Ian Alexander White, Ph.D.

Neobiosis, LLC  
Founder, President & Chief Scientific Officer

**Education: Cornell University** (2008) Ph.D. – Ansayr Stem Cell Institute, Division of Regenerative Medicine.

**Liverpool School of Tropical Medicine, UK** (1999)  
Master of Science.

**Liverpool John Moores University, UK** (1998)  
Bachelor of Science.

**Gloucester College of Arts & Technology, UK** (1994)  
National Diploma in Science.

#### Employment/Research Experience:

**NioBiosis, LLC** (2020 – Date) Founder, President and Chief Scientific Officer. Research and manufacturing of perinatal products for regenerative medicine.

**IMAC Regeneration Centers** (2018 – 2020) Chief Scientific Officer. Research and manufacturing of cellular and tissue products for regenerative medicine. Took company public on NASDAQ in February 2019 (symbol: IMAC).

**BioFirma, LLC** (2018 – 2020) Founder and President. Research and manufacturing of cellular and tissue products for regenerative medicine. BioFirma, LLC became NeoBiosis, LLC in 2020.

**Bascom Palmer Eye Institute, University of Miami** (2018 – 2019) Lead Scientist - cellular research in the Translational Ocular Regenerative Medicine Unit.

**University of Miami, Miller School of Medicine – Interdisciplinary Stem Cell Institute** (2013 – 2018) Scientist under the direction of Dr. Joshua Hare. Advanced research in the field of cardiovascular disease and cardiac regeneration.

**University of Georgia** (2009 – 2013) Post-doctoral research within the embryonic stem cell laboratory of Dr. Stephen Dalton focused on stem cell therapy, cardiogenesis and neo-angiogenesis.

**Cornell University** (2002 – 2008) Ph.D. research under the mentorship of Dr. Shahin Rafii focused on the biology of hematopoietic stem cell self-renewal within the vascular niche.



**Harvard University** (2000 – 2002) Research Assistant in the laboratory of Dr. Laurie Glimcher focused on immune stem cell differentiation.

**Dartmouth College** (1999 – 2000) Research Assistant to Professor Eric Lambie working on the genetics of gamete formation in nematodes.

#### Honors and Awards:

2018 – American Academy of Stem Cell Physicians' honor in teaching.

2016 – The Margaret Whelan University of Miami Medical Faculty Association Award. 2016 – Circulation Research "Best Manuscript" Award. 2016 – Top 10 most read articles published in Circulation Research in 2015 2016 – One of the "most important research articles in the field of regenerative medicine".

2015 – Cover of Circulation Research (Dec 4th issue)

2015 – 7th Annual Leonard M. Miller School of Medicine Postdoctoral Research Award, Miami, FL.

2012 – Developmental Biology Postdoc Award, UGA, GA 2011 – Harry Peck Postdoctoral Research Award, Dept. of Biochem. and Mol. Bio., UGA, GA. 1998 – Wellcome Trust Research Scholarship, Liverpool, UK.

#### Publications:

Bellio, M., Farshchian, AJ., **White, IA.** (in press) Bone Marrow Aspirate and the Use of Autologous Cells and Cellular Products in Regenerative Medicine. *Renegerative Medicine: A Complete Guide for Musculoskeletal and Spine Disorders*. Springer Nature Publishing.

Tovar, AA., **White, IA.**, Sabater, AL., (in press) Use of Acellular Umbilical Cord-Derived Tissues in Corneal and Ocular Surface Diseases: Special Issue "Stem Cells in Eye Research and Ophthalmology— Current Advances and Future Directions" *Medicines*.

Gonzalez, MJ., Kweh, MF., Biava, PM., Olalde, J., Toro, AP., Goldschmidt-Clermont, PJ., **White., IA** (in press) Evaluation of Exosome Derivatives as Bio-Informational Reprogramming Therapy for Cancer. *Journal of Translational Medicine*.

Arora, H., Lavin, AC., Balkan, W., Hare, JM., **White, IA.** (in press) Neuregulin-1, in a Conducive Milieu with Wnt/Bmp/Retinoic Acid, Prolongs the Epicardial-Mediated Cardiac Regeneration Capacity of Neonatal Heart Explants. *Stem Cells & Regenerative Medicine*.

**White IA.** (2020) The Potential of Amniotic Fluid-Derived Extracellular Vesicles to Treat Severe Acute Respiratory Syndrome Coronavirus 2 Infection Versus Hydroxychloroquine in Human Patients. *Epidemiology OJ.*; 5(1):8-12 Goldschmidt-Clermont, PJ., DiFede, DL., **White IA.** (2019) Amniotic Exosomes and Pregnancy. *eLetter. Science Translational Medicine*. Vol 11, issue 492.

**White IA**, Sebater, AL. (2018) Current Strategies for Human Corneal Endothelial Tissue Regeneration. *Regenerative Medicine*. May. 14(4):257-261 **White, IA**. (2016) Cardiac Sympathetic Denervation in the Failing Heart: A Role for Epicardial Adipose Tissue. *Circulation Research*. April 14:118,1189-1191 **White, IA.**, Sanina, C., Balkan, W., Hare, JM. (2016) Mesenchymal stem cells and cardiology. *Methods in Molecular Biology*, Springer Publishing, NY.

**White, IA.**, Gordon, J., Balkan W., Hare, JM. (2015) Sympathetic Reinnervation is Required for Mammalian Cardiac Regeneration. *Circulation Research*. Dec 4;117(12):990-4 Hatzistergos, KE., Takeuchi, LM., Saur, M., Dymecki, SM., Mai, JJ., **White, IA.**, Balkan, W., Kanashiro- Takeuchi, RM., Hare, JM. cKit+ Cardiac Progenitors of Neural Crest Origin. *PNAS*, 2015;20;112 (42):13051-6 Westerweel, PE., Teraa, M., Rafii, S., **White, IA.**, Hooper, AT., Doevendans, PA., Verhaar, MC. Impaired Endothelial progenitor cell mobilization due to bone marrow vascular niche dysfunction in diabetes mellitus. *PLoS One*. 2013;8

Butler JM, Nolan DJ, Vertes EL, Varnum-Finney B, Kobayashi H, Hooper AT, Seandel M, Shido K, **White IA**, Kobayashi M, Witte L, May C, Shawber C, Kimura Y, Kitajewski J, Rosenwaks Z, Bernstein ID, Rafii S. Endothelial cells are essential for the self-renewal and repopulation of Notch-dependent hematopoietic stem cells. *Cell Stem Cell*. (2010) Mar 5;6(3):251-64.

Seandel M, Butler JM, Kobayashi H, **White IA**, Rafii, S. Generation of a functional and durable vascular

niche by the adenoviral E4ORF1 gene. *Proc Natl Acad Sci USA*. (2008) Dec 9; 105(49).

Shmelkov SV, Butler JM, Hooper AT, Hormigo A, Kushner J, Milde T, St Clair R, Baljevic M, **White I**, Jin DK,

Chadburn A, Murphy AJ, Valenzuela DM, Gale NW, Thurston G, Yancopoulos GD, D'Angelica M, Kemeny N, Lyden D, Rafii S. CD133 expression is not restricted to stem cells, and both CD133+ and CD133-metastatic colon cancer cells initiate tumors. *J Clin Invest*. 2008 Jun;118(6):2111-20.

Peng, S.L., Townsend, M.J., Hecht, J.L., **White, IA.**, Glimcher, L.H. (2004) T-bet Regulates Metastasis Rate

in a Murine Model of Primary Prostate Cancer. *Cancer Research* 64:452-455

Miaw, S-C., Kang, B.Y., **White, IA.**, Ho, I-C. (2004) A Repressor of GATA-Mediated Negative Feedback

Mechanism of T Cell Activation. *The Journal of Immunology* 172:170-177

Hwang, E-S., **White, IA.**, Ho, I-C. (2002). An IL-4-independent and CD25-mediated function of c-maf in

promoting the production of Th2 cytokines. *Proc Natl Acad Sci U S A*. 1;99(20):13026-30

**Presentations:**

**White IA** (2020) Amniotic fluid in esthetics, *PRF Facial Esthetics Course, Ft. Lauderdale (Invited Oral)*

**White IA** (2020) CytoSomes in Regenerative Medicine, *Perinatal Stem Cell Soc., Utah (Invited Oral)*

**White IA** (2019) Exosomes in Advanced Medicine, *R3 teaching seminar, Las Vegas, NV (Invited keynote)*

**White IA** (2019) Regeneration:101 Homeostasis, Tissue Regeneration and Aging, *Boston BioLife,*

*Dallas, TX (Invited Oral)*

**White IA** (2019) Foundations of Regenerative Medicine, *Boston BioLife, Boston, MA (Invited Oral)*

**White IA** (2019) Perinatal Products: Cytotherapy and Exosomes. *Boston BioLife, Boston, MA (workshop)*

**White IA** (2019) Exosomes: The Next Generation of Biologic Medicine. *Age Management Medicine*

*Group (AMMG), Miami FL (invited Oral)*

**White IA** (2019) Personalized Precision Health Training. *Boston BioLife, LA, CA (invited Oral, workshop)*

**White IA** (2019) The Biochemistry of Stem Cell Science & Regenerative Medicine in Clinical Practice.

*Boston BioLife, Coral Gables, FL (invited Oral)*

**White IA** (2019) Stem Cells and Exosomes for Clinical Applications. *World Stem cell Summit, Miami FL.*

**(Interviewed for docu-series: "Pain Revealed": Episode #3, 45 minutes air time)**

**White IA** (2018) Advancements in Stem Cells and Exosomes for Regenerative Medicine. *American*

*Academy of Anti-Aging (A4M), Las Vegas, NV (Invited Live-streamed round table recorded for docu-series)*

**White IA** (2018) Umbilical Cord Blood-derived Cellular Therapy. *Boston BioLife, Orlando, FL (Workshops)*

**White IA** (2018) Regeneration 101. *Boston BioLife, Orlando, FL (Invited Oral)*

**White IA** (2018) Perinatal Biologics. *Boston BioLife, Orlando, FL (Invited Oral)*

**White IA** (2018) Stem Cells for Autoimmune Disorders. *International Topical Steroid Addiction Network,*

*Atlanta, GA (Invited Oral)*

**White IA** (2018) Regeneration: 101. *American Academy of Stem Cell Physicians, Miami, FL (Invited Oral)*

**White IA** (2018) The Future of Regenerative Medicine. *American Academy of Stem Cell Physicians,*

*Miami, FL (Invited Live-streamed Round Table)*

**White IA** (2016) Sympathetic Reinnervation is Required for Mammalian Cardiac Regeneration

– “The Best of *Circ. Res.* 2015”. *American Heart Association Scientific Sessions, New*

*Orleans, LA (Invited Oral)*. **White IA** (2016) Neuregulin-1 Mediates Myocardial Survival in a Novel Explant Culture Model

of Neonatal Cardiac Regeneration. *American Heart Association Scientific Sessions, New*

*Orleans, LA (Invited oral)*. **White IA** (2016) Basic Fibroblast Growth Factor Drives the Differentiation of Epicardial

Adipose Tissue in the Ex vivo Mammalian Heart. *American Heart Association Scientific*

*Sessions, New Orleans, LA (Abstract)*. **White IA**, Hare JM (2015) Sympathetic Reinnervation is Required for Mammalian Cardiac Regeneration.

*American Heart Association Scientific Sessions, Orlando, FL (Abstract)*.

**White IA** (2012) hESC-derived epicardial cells contribute to mammalian cardiac regeneration in vivo and

in a novel, long-term ex-vivo culture system. *Developmental Biology Program, UGA, Athens, GA.*

**White IA** (2011) Insights into mammalian cardiac regeneration through novel ex-vivo studies. *Biochem.*

*& Mol.Biol.annual meeting, UGA, Athens, GA. (Oral)*.

**White, IA., Rafii, S.** (2008) Angiogenic vascular niche drives hematopoietic stem cell self-renewal and expansion through Notch signaling. *DuVigaud Symposium, Weill Cornell Medical College.* (Oral).

**Peer Reviewer:**

I have reviewed manuscripts for Circulation, Circulation Research, Cardiovascular Research, Journal of the American Heart Association, European Heart Journal, European Journal of Heart Failure, PLoS ONE, Journal of Clinical Medicine, Journal of Cell and Molecular Medicine, Cardiovascular Diabetology, Journal of Cardiovascular Pharmacology and Therapeutics, Springer Plus, FASEBJ, Science Translational Medicine, Hypertension, Transplantation, Stem Cells Translational Medicine, Cell Transplantation, Journal of Developmental Neuroscience and Scientific Reports.

**Grant Reviewer:**

I have acted as a grant reviewer for the European Research Council (ERC).

**Memberships**

International Society for Stem Cell Research

Regenerative Medicine Foundation

Perinatal Stem Cell Society

Rotary International