Injectable Peptides for Intraoperative Nerve Visualization and Preservation

Quyen T. Nguyen MD/PhD
Associate Professor of Surgery

Disclosure: Scientific founder and advisor to Avelas Biosciences
Unmet need to improve intraoperative visualization of tumors

RACPP developed
Jiang et al PNAS 2004
Nguyen et al PNAS 2010

licensed by Avelas Biosciences
AVB620 (NCT02391194)
Unmet need to improve intraoperative visualization of nerves
Nerve illumination peptide developed
Clinical translation ongoing

Patents: US20120148499,
WO2010121023A3
Whitney et al Nat Biotech 2011
Hingorani et al, in preparation 2017
Nerve illumination peptide developed
Clinical translation ongoing

Addressing Unmet Needs
(number of surgeries in US/year)

1. Urinary Systems  >1M /year
2. Ear Surgery  >399K/year
3. Facelift/Facial Nerve Cancer  >100K/year
4. Thyroid/Parathyroid Surgery  >80K/year
5. Axillary Lymph Node Surgery (breast cancer)
6. Cervical neck dissection (head and neck cancer)
7. Spinal Surgery
8. Repair of traumatic nerve injury/amputation

Total:  >1.5M /year

Acknowledgements

Funding:
Moores Cancer Center
R01 EB014929
R01 CA158448
R21 HD090662

Faculty:
Roger Tsien PhD (1952-2016)
Sunil Advani, MD
Chris Kane, MD
Christina Jamieson, PhD
Shaochen Chen PhD
Trey Ideker, PhD
Ezra Cohen, MD
Michael Bouvet, MD
Bob Mattrey, MD
Todd Coleman, PhD
Miriam Scadeng MD
Lesley Ellies PhD

Students and postdocs: Joe Acevedo, Courtni Salinas, William Moss, Aaron Lemieux, Sharat Raju
Project Scientists Mike Whitney, PhD Stephen Adams, PhD Paul Steinbach
Past members: Linda Nguyen, MD, Samantha Hauff, MD, Timon Hussain, MD Ryan Orosco, MD
Jung Geun Gwon, MD Bonnie Vorasubin, MD Amy Wu, MD Jasper Shen, MD Fred Baik, MD Melina Mastrodimos, Rachy Levin