

Patents – Department of Immunology and Nano-Medicine

- **Dr. Madhavan Nair, Distinguished Professor and Chair:**

1. Madhavan Nair, Zainulabedin M. Saiyed, Nimisha H. Gandhi, Inventors; Florida International Board of Trustees, Assignee. Plant derived formulation for treatment of HIV. Filed 2011; January 2016. US 9,238,051-B2.
2. Sakhrat Khizroev, Madhavan P.N. Nair, Inventors: Florida International Board of Trustees, Assignee. Method for Non-Invasive Brain Stimulation. Filed 2013; March 2016. US 9,272,158-B2.
3. Upal Roy, Vadym Drozd, Madhavan Nair, Surendra K. Saxena, Andriy Durygin, Inventors; Florida International Board of Trustees, Assignee. Nanodiamond Compositions and their Use for Drug Delivery. Filed 2016; April 2017. US 9,616,022-B1.
4. Khizroev S, Nair MPN, Inventors; Florida International Board of Trustees, Assignee. Method for non-invasive brain stimulation. Filed 2016; June 2017 U.S. Patent US 9,669,232-B2.
5. Kaushik, A., Nair, M.P.N. Inventors; Florida International University, assignee. Devices and Methods to monitor HIV infection in presence of substance of abuse and/or therapeutic agent. Filed 2016; September 2017. U.S. patent US 9,759,709-B1.
6. Roy U, Ding H, Nair MPN, inventors: Florida International University, assignee. Materials and methods for targeting therapeutic compositions to gut-associated lymphoid tissue (GALT). Filed 2017; January 2018. US 9,872,859-B2.
7. Sakhrat Khizroev, Nair M.P.N., Ping Laing, Carolyn Runowicz, Rakesh Guduru, Inventors: Florida International Board of Trustees, Assignee: On – demand drug release using magneto – electric nanoparticles. US 9,895,549. February 2018.
8. Ajeet Kaushik, Nair M.P.N., Inventors, Florida International Board of Trustees, Assignee. Rapid Zika Virus Detection Using Nano-Enabled Electrochemical Sensing System. Filed 2016; July 2018. US 10,012,645-B2.
9. Zaohua Huang, Nair M.P.N., Inventors: Florida International Board of Trustees, Assignee. Methods for screening and using CRISPR/CAS9 guidance RNA sequence from HIV provir. US Patent 10,066,221. September 2018.
10. Nair, M, (MIAMI, FL, US), Tiwari, Sneham (MIAMI, FL, US), Arias, Adriana Yndart (MIAMI, FL, US), Inventors, Florida International Board of Trustees, Assignee. Compositions and methods for treating HIV-associated neurocognitive disorders. Filed 2017; February 2019. US 10,213,507-B2.
11. Nair, Madhavan, Saiyed, Zainulabedin M., Gandhi, Nimisha H. Inventors; Florida International University Board of Trustee, assignee. Plant-Derived Formulation for Treatment of HIV. Filed 2015; June 2019 US 10,314,875-B2
12. Vashist, M. Nair, and A. Kaushik; Micro/Nano Magnetic Hydrogels with Autofluorescence for Therapeutic and Diagnostic Applications. Florida International University Board of Trustees, assignee. 2018; July 2019 US 10,344,100-B1.
13. Vidya Sagar, Madhavan Nair, Inventors; Florida International University Board of Trustees, assignee. Near-infrared ray exposure System for Biological Studies. Filed 2017; August 2019. US 10,378,006-B2.
14. Asahi Tomitaka, Madhavan Nair, Inventors; Florida International University Board of Trustees, Assignee. Stimuli-Responsive Magneto-Plasmonic Nanocarrier. Filed 2017; February 2020. US 10,561,745-B2.

15. Hitendra S. Chand, Madhavan Nair, Inventors; Florida International University Board of Trustees, Assign. Long Noncoding RNAs in Pulmonary Airway Inflammation. Filed 2019; December 2020. US10,851,376-B2.
16. Vashist, A. Raymond, and M. Nair "Biotherapy for Viral infections using Biopolymer based Micro/Nanogels" International patent application No. PCT/US2020/036292, filed on 6/05/2020, unpublished.

- **Dr. Hitendra Chand, Associate Professor:**

1. Hitendra S. Chand and Madhavan Nair: Long noncoding RNAs in pulmonary airway inflammation. A US Utility Patent #10,851,376 (December 01, 2020)
2. Walter Kisiel and Hitendra S. Chand: Human Kunitz-Type Inhibitor with Enhanced Antifibrinolytic Activity. A US Utility Patent #7,910,550. (2011)
3. Walter Kisiel (UNM), Hitendra S. Chand (UNM) and S. Paul Bajaj (UCLA): Methods and Compositions for Plasmin Inhibition. A US Utility Patent #7,585,842. (2009)
4. Walter Kisiel and Hitendra S. Chand: Human Kunitz-Type Inhibitor with Enhanced Antifibrinolytic Activity. A US Utility Patent #7,432,238. (2008)

- **Dr. Madepalli Lakshmana, Associate Professor:**

1. Madepalli Lakshmana, Adel Nefzi, Richard Houghten, Dimitriy Minond, Inventors; Torrey Pines Institute for Molecular Studies, Assignee; Compounds and methods of treating neurological disorders. Filed May 2015; October 2016; PCT/US2015/028739