

## **Dr. DEBASHISH DAS (M.Phil, Ph.D)**

### **RESEARCH GRANTS:**

- Duration: 2013-2016      **Department of Science & Technology, Government of India**  
*Amount: INR 4434000 (71550 USD approx); Completed*  
*Principal Investigator*
- Duration: 2014-2016      **National Keratoconus Foundation, USA**  
*Amount: 15000 USD; Completed*  
*Principal Investigator*
- Duration: 2014-2017      **Department of Science & Technology, Biocare, Government of India**  
*Amount: INR 3800000 (62400 USD approx); Completed*  
*Co-Investigator*
- Duration: 2015-2017      **Indian Council of Medical Research, Government of India**  
*Amount: INR 500000; Completed*  
*Principal Investigator*
- Duration: 2022-2024      **Velux Stiftung, Switzerland**  
*Amount: 204000 CHF; On-Going*  
*Principal Investigator*

### **PATENT**

A process for identification of biomarkers for Keratoconus progression. Roger Bueurman, Arkasubhra Ghosh, Rohit Shetty, Zhou Lei, **Debashish Das** Patent WO2014106833A1

### **PUBLICATIONS:**

#### **JOURNALS**

1. Rohit Shetty, Krithikaa Mahendran, Parth D Joshi, Nallathambi Jeyabalan, Chaitra Jayadev, **Debashish Das**. Corneal stromal regeneration-keratoconus cell therapy: a review. *Graefes Arch Clin Exp Ophthalmol*. **2023** Apr 19
2. Rohit Shetty, Parth D Joshi, Krithikaa Mahendran, Chaitra Jayadev, **Debashish Das**. Resveratrol for dry eye disease - hope or hype! *Indian Journal of Ophthalmology*. **2023**;71(4):1270-1275
3. Zia Sultan Pradhan, Shivani Dixit, Lekshmi Krishna, Reshma Shetty, Sushma Tejwani, Harsha L Rao, Rohit Shetty, Carroll A B Webers, **Debashish Das**. Upregulated NOTCH signaling in the lens of patients with pseudoexfoliation syndrome compared to pseudoexfoliation glaucoma suggests protective role. *Journal of Glaucoma*. **2022**; 31(3): e1- e9.
4. Koushik Chakrabarty, Rohit Shetty, Shubham Argulwar, **Debashish Das**, Arkasubhra Ghosh. Induced pluripotent stem cell-based disease modeling and prospective immune therapy for coronavirus disease 2019. *Cytotherapy*. **2021**; S1465-3249(21)00776-3
5. Rohit Shetty, Nimisha Rajiv Kumar, Murali Subramani, Lekshmi Krishna, Ponnalagu Murugeswari, Himanshu Matalia, Pooja Khamar, Zeld V Dadachanji, Rajiv R Mohan, Arkasubhra Ghosh, **Debashish Das**. Safety and efficacy of combination of suberoylamilide hydroxyamic acid and mitomycin C in reducing pro-fibrotic changes in human corneal

- epithelial cells. *Scientific Reports*. 2021;11(1):4392
6. Rohit Shetty, Ponnalagu Murugeswari, Koushik Chakrabarty, Chaitra Jayadev, Himanshu Matalia, Arkasubhra Ghosh, **Debashish Das**. Stem cell therapy in COVID-19 – current evidence and future potential. *Cytotherapy*. 2020; S1465-3249(20):30932-4
  7. Rohit Shetty, Murali Subramani, Ponnalagu Murugeswari, Venkata Ramana Anandula, Himanshu Matalia, Chaitra Jayadev, Arkasubhra Ghosh, **Debashish Das**. Resveratrol Rescues Human Corneal Epithelial Cells Cultured in Hyperosmolar Conditions: Potential for Dry Eye Disease Treatment. *Cornea*. 2020;39(12):1520-1532
  8. Ponnalagu Murugeswari, Arman Firoz, Subramani Murali, Anand Vinekar, Lekshmi Krishna, Venkata Ramana Anandula, Nallathambi Jeyabalan, Priyanka Chevour, Chaitra Jayadev, Rohit Shetty, Gilles Carpentier, Govindaswamy Kumaramanickavel, Arkasubhra Ghosh, **Debashish Das**. Vitamin-D3 ( $\alpha$ -1, 25(OH) 2D3) protects retinal pigment epithelium from hyperoxic insults. *Investigative Ophthalmology & Visual Science*. Feb, 2020, 61(2):4
  9. Lekshmi Krishna, Sagar Nilawar, Murugeswari Ponnalagu, Murali Subramani, Chaitra Jayadev, Rohit Shetty, Kaushik Chatterjee, **Debashish Das**. Fiber Diameter Differentially Regulates Function of Retinal Pigment and Corneal Epithelial Cells on Nanofibrous Tissue Scaffolds. *ACS Applied Biomaterials*. Jan, 2020, 3, 2, 823–837
  10. Kamesh Dhamodaran, Murali Subramani, Lekshmi Krishna, Himanshu Matalia, Chaitra Jayadev, Nandhini Chinnappaiah, Rohit Shetty, **Debashish Das**. Temporal Regulation of Notch Signaling and Its Influence on the Differentiation of Ex Vivo Cultured Limbal Epithelial Cells. *Current Eye Research*. 2020 Apr;45(4):459-470.
  11. Pooja Khamar, Archana Padmanabhan Nair, Rohit Shetty, Tanuja Vaidya, Murali Subramani, Murugeswari Ponnalagu, Kamesh Dhamodaran, Sharon D'souza, Anuprita Ghosh, Natasha Pahuja, Rashmi Deshmukh, Prerna Ahuja, Kanchan Sainani, Rudy M. M. A. Nuijts, **Debashish Das**, Arkasubhra Ghosh, Swaminathan Sethu. Dysregulated Tear Fluid Nociception-Associated Factors, Corneal Dendritic Cell Density, and Vitamin D Levels in Evaporative Dry Eye. *Investigative Ophthalmology & Visual Science*. June 2019 (60), 2532- 2542
  12. Lekshmi Krishna, Kamesh Dhamodaran, Murali Subramani, Murugeswari Ponnulagu, Nallathambi Jeyabalan, Sai Rama Krishna Meka, Chaitra Jayadev, Rohit Shetty, Kaushik Chatterjee, Samanta Khora, **Debashish Das**. Protective role of decellularized human amniotic membrane from oxidative stress induced damage on retinal pigment epithelial cells. *ACS Biomaterials Science & Engineering*. 2019, 5 (1), pp 357–372
  13. Rohit Shetty , Krishna P. Vunnava , Kamesh Dhamodaran , Himanshu Matalia , Subramani Murali , Chaitra Jayadev , Ponnalagu Murugeswari , Arkasubhra Ghosh, **Debashish Das**. Characterization of corneal epithelial cells in keratoconus. *Translational Vision Science and Technology*, Jan 2018, (8), 2
  14. Murali Subramani, Murugeswari Ponnalagu, Lekshmi Krishna, Nallathambi Jeyabalan, Priyanka Chevour, Anupam Sharma, Chaitra Jayadev, Rohit Shetty, Nargis Begum, Govindaraju Archunan, **Debashish Das**. Resveratrol reverses the adverse effects of bevacizumab on cultured ARPE-19 cells. *Scientific Reports*. 2017 Sep 25;7(1):12242.
  15. Ponnalagu Murugeswari, Murali Subramani, Chaitra Jayadev, Rohit Shetty, **Debashish Das**. Retinal pigment epithelium - secretome: A diabetic retinopathy perspective. *Cytokine* 2017, 7;95:126-135
  16. Simple Mohanta, Gangotri Siddappa, Sindhu Govindan Valiyaveedan, Ravindra Dodda Thimmasandra Ramanjanappa, **Debashish Das**, Ramanan Pandian, Samanta Sekhar Khora, Moni Abraham Kuriakose, Amritha Suresh. Cancer stem cell markers in patterning differentiation and in prognosis of oral squamous cell carcinoma. *Tumor Biology* 2017, Jun;39(6):1010428317703656.
  17. Lekshmi Krishna, S.S. Khora, **Debashish Das**. Down-regulated Notch signaling in ARPE-19 cells cultured on denuded human amniotic membrane. *Int J Pharm Bio Sci* 316, 2017 Jan;

8(1): (B) 316-323

18. Lekshmi Krishna, Kamesh Dhamodaran, Chaitra Jayadev, Kaushik Chatterjee, Rohit Shetty, S.S. Khora, **Debashish Das**. Nanostructured scaffold as a determinant of stem cell fate. *Stem Cell Research and Therapy*, **2016; 7: 188**.
19. Murali Subramani, Ponnalagu Murugeswari, Kamesh Dhamodaran, Priyanka Chevour, Sindhu Gunasekaran, Rajesh S Kumar, Chaitra Jayadev, Rohit Shetty, Nargis Begum, **Debashish Das**. Short pulse of clinical concentration of bevacizumab modulates human retinal pigment epithelial functionality. *Investigative Ophthalmology & Visual Science*. **2016;57:1140–1152**
20. Kamesh dhamodaran, Murali subramani, Himanshu matalia, Chaitra jayadev, Rohit shetty, **Debashish Das**. One for all: A standardized protocol for ex vivo culture of limbal, conjunctival and oral mucosal epithelial cells into corneal lineage. *Cytotherapy*. **2016; 18(4):546-61**
21. Sreekala S. Nampoothiri, Hari Vinayak Menon, **Debashish Das**, Rajanikant G. K ISCHEMIRs: Finding a way through the obstructed cerebral arteries.. *Current Drug Targets*. **2016;17(7):800-10**.
22. Kamesh Dhamodaran, Murali Subramani, Nallathambi Jeyabalan, Murugesari Ponnalagu, Priyanka Chevour, Reshma Shetty, Himanshu Matalia, Rohit Shetty, Sabina Prince, **Debashish Das**. Characterization of ex-vivo cultured limbal, conjunctival and oral mucosal cells: A comparative study with implication in transplantation medicine. *Molecular Vision*. **2015 Jul 31;21:828-45**
23. Simple Mohanta, Amritha Suresh, **Debashish Das**, Moni A Kuriakose. Cancer stem cells and field cancerization of Oral squamous cell carcinoma. *Oral Oncology*. **2015;51(7):643-51**
24. Sindhu Govindan Valiyaveedan, Balaji Ramachandran, Jeyaram Iliaraja, Ravindra DR, Bonney Lee James, Kulsum Safeena, Ramanan Pandian, Gangotri Siddappa, **Debashish Das**, Nisheena R, Aravindakshan Jayaprakash, Vikram Kekatpure, Wesley Hicks Jr, Moni A Kuriakose and Amritha Suresh. Acquisition of Cancer Stem Cell Behaviour Plays a Role in Drug Resistance to Combination Chemotherapy and Prognosis in Head and Neck Cancer. *Journal of Stem Cell Research & Therapy*. **2015. 5:261**
25. Sindhu Valiyaveedan Govindan, Safeena Kulsum, Ramanan S, **Debashish Das**, Mukund Seshadri, Wesley Hicks Jr, Moni A Kuriakose, Amritha Suresh. Establishment and characterization of triple drug resistant head and neck squamous cell carcinoma cell lines. *Molecular Medicine Reports* **2015. 12.2: 3025-3032**.
26. Rohit Shetty, Anuprita Ghosh, Rayne R. Lim, Murali Subramani, Krina Mihir, Reshma A. R, Ashwini Ranganath, Sriharsha Nagaraj, Rudy M. M. A. Nuijts, Roger Bueurman, Reshma Shetty, **Debashish Das**, Shyam S. Chaurasia, Abhijit Sinha-Roy, Arkasubhra Ghosh. Elevated expression of Matrix Metalloproteinase 9 and Inflammatory Cytokines in Keratoconus Patients is inhibited by Cyclosporine A. *Investigative Ophthalmology & Visual Science*. **2015. 3;56(2):738-50**
27. Rohit Shetty, Himanshu Matalia, Rudy Nuijts, Murali Subramani, Kamesh Dhamodaran, Ramanan Pandian, Chaitra Jayadev, **Debashish Das**. Safety profile of accelerated corneal cross-linking versus conventional cross-linking: a comparative study on ex vivo-cultured limbal epithelial cells *British Journal of Ophthalmology*. **2014. 99; 272-280**
28. Kamesh Dhamodaran, Subramani Murali Murugeswari P, Reshma Shetty, **Debashish Das**. Ocular stem cells: A status update. *Stem Cell Research and Therapy*. **2014. 5:56**. Supriya S Dabir, **Debashish Das**, Jeyabalan Nallathambi, Shwetha Mangalesh, Naresh Yadav, Jan S. A. G. Schouten. Differential systemic gene expression profile in patients with diabetic macular edema: responders versus non-responders to standard treatment. *Indian Journal of Ophthalmology*. **2014, 62(1); 66-73**
29. Himanshu Matalia, Rohit Shetty, Kamesh Dhamodaran, Murali Subramania, Vincent Arokiaraj, **Debashish Das**. Potential apoptotic effect of ultraviolet-A irradiation during

- corss-linking: astudy on ex-vivo cultivated limbal epithelial cells. *British Journal of Ophthalmology*. Oct;96(10): **2012** 1339-45
30. Ramana Anandula Venkata, Raju Konduru Chandra Sekhar, Sujatha Pokala, **Das Debashish**, Ramesh N. RPE 65 gene mutation: A rare event in Lebers Congenital Amaurosis patients in Indian subcontinent. *Research Journal of Biotechnology*. 7(2): **2012**, 18-21.
  31. Lining Liu, Fredrik Lanner, Urban Lendahl, **Debashish Das**. Numblike and Numb differentially affect p53 and Sonic Hedgehog. *Biochem Biophys Res Commun*. 413(3):**2011**, 426-31.
  32. **Debashish Das**, Fredrik Lanner, Heather Main, Emma R. Andersson, Olaf Bergmann, Cecilia Sahlgren, Nina Heldring, Ola Hermanson, Emil M. Hansson, Urban Lendahl. Notch induces cyclin-D1-dependent proliferation during a specific temporal window of neural differentiation in ES cells. *Dev Biol*. 348(2): **2010**, 153-66.
  33. Emil M. Hansson, Fredrik Lanner, **Debashish Das**, Anders Mutvei, Ulrika Marklund, Johan Ericson, Filip Farnebo, Gabriele Stumm, Harald Stenmark, Emma R. Andersson, Urban Lendahl. Control of Notch-ligand endocytosis by ligand-receptor interaction. *J Cell Biol*.123(Pt 17): **2010**, 2931-42.
  34. René Jüttner, Margret I. Moré, **Debashish Das**, Aleksei Babich, Jochen Meier, Mechthild Henning, Bettina Erdmann, Eva-Christiana Müller, Albrecht Otto, Rosemarie Grantyn and Fritz G. Rathjen. Impaired synapse function during postnatal development in the absence of CALEB, an EGF-like protein processed by neuronal activity. *Neuron*, 46; **2005**, 233-45.
  35. Savitri Sharma, Gunisha Pasricha, **Debashish Das**, Ramesh K Aggarwal. Acanthamoeba keratitis in non-contact lens wearers in India: DNA typing-based validation and a simple detection assay. *Archives of Ophthalmology*, 122; **2004**, 1430-4.
  36. Savitri Sharma, **Debashish Das**, Raj Anand, Taraprasad Das, Chitra Kannabiran. Reliability of Nested PCR in the diagnosis of bacteria endophthalmitis. *American Journal of Ophthalmology*, 133 (1); **2002**, 142-4.
  37. Rajasekhar Harini, MD. Ata-Ur -Rasheed, Mahesh P Shanmugam, Jacob Amli, **Debashish Das**, Govindaswamy Kumarmanickavel. Genetics of retinoblastoma: A cytogenetic and segregation analyses profile of 81 patients from a referral hospital in Southern India. *Indian Journal of Ophthalmology*, 49 (1); **2001**, 37-42.
  38. **Debashish Das**, MD. Ata-Ur-Rasheed. A novel method for eliminating the melanin pigments from melanoma cells undergoing cytogenetic analysis in cases of uveal melanoma. *Cancer Genetics and Cytogenetics*, 127; **2001**, 181-3.

#### BOOKS AND INTERVIEWS

1. Fate of limbal epithelial cell in a lab. In *ROPEONLINE* video tutorial edited by Chaitra Jayadeva. **Debashish Das**. Elsevier Health Science ([www.ropeonline.org](http://www.ropeonline.org)). **2013**
2. Kamesh Dhamodaran, Reshma Shetty, Subramani Murali, **Debashish Das**. Ocular stem cells: An overview. In *Recent Advances in Ophthalmology Research* edited by Galina Dimitrova. Nova Publishers, USA. **2013**, 103-135 (**Book Chapter**)
3. Interview in “To Link or Not to Link: CXL Discussion at ESCRS Matures as Procedure’s Use Grows” By Linda Roach, *AAO-ISRS- Refractive surgery Outlook 2012*.

#### CONFERENCES AND SEMINARS

##### ORGANIZER

- Organized international CME with Karolinska Institute, Stockholm. Regenerative and Transplantation

*Medicine in Ophthalmology, 12-16 Nov, 2011, Bangalore*

- *Co-Organizer of International Society for Genetic Eye Diseases and Retinoblastoma, 14-16 Jan, 2011, Bangalore, India*

#### INVITED SESSION CHAIR:

- *AOCMF Advanced Seminar on Tissue Engineering and Research Methodology, 14-16 Nov, 2013, Mazumdar Shaw Cancer Center, Bangalore, India*
- *1<sup>st</sup> Asian Debate on Keratoconus, 15-16 Dec, 2012, Bangalore, India*
- *International Society for Genetic Eye Diseases and Retinoblastoma, 14-16 Jan, 2011, Bangalore, India*
- *Regenerative and Transplantation Medicine in Ophthalmology, 12-16 Nov, 2011, Bangalore, India*

#### INVITED SPEAKER:

1. *Maisonneuve-Rosemont Hospital Research Center, Montreal, Canada, 3<sup>rd</sup> May 2019. Montreal Winter Seminar Series*
2. *AIIMS Bhubaneswar, 2<sup>nd</sup> April 2019, Bhubaneswar, Odisha. Stem cell research in Ophthalmology*
3. *AMBICON-2018 (7<sup>th</sup> Jan 2018) held at Kalinga Institute of Medical Sciences, Bhubaneswar. Stem cells- Passing the baton from basics to clinics.*
4. *Stem cells- A ocular stem cell application- Department of Zoology, Orissa University of Agriculture and Technology, 5<sup>th</sup> Jan 2018.*
5. *Stem cells: Basics and Clinical application. – Department of Biotechnology, Utkal University, 5<sup>th</sup> Jan 2018.*
6. *Stem cells and regenerative medicine- Anna University 11<sup>th</sup> Nov, 2016, India. Stem cells: I See!!.*
7. *Invited talk by School of Biosciences and Technology, Vellore Institute of Technology (11 Feb, 2015). Ocular Stem Cells: Leading regenerative medicine.*
8. *Conference & Workshop on Ophthalmic Genetics and Genetic Counseling for Clinicians and Basic Scientists (15-16 Feb- 2014) held at Narayana Nethralaya, Bangalore. Stem cell therapy in ophthalmology.*
9. *Faculty Development Program: Stem cells – evolution, mechanisms and therapy experimental/clinical/in silico aspects–current status and lessons for the future (24-27 Feb-2014) held by Vellore Institute of Technology-Vellore. Signal transduction pathways in stem cell proliferation & differentiation-mesenchymal/epithelial-lessons from ocular and cancer stem cells. Bishop Heber College Helix Association: Lecture (19 Aug-2014) held at Bishop Heber College, Trichy. Applications of Stem Cell Biology.*
10. *Department of Biotechnology, Lecture Series (19 Aug-2014) held at Bharatidasan University, Trichy. Stem cells: An Insight.*
11. *Madras Veterinary College, Lecture series (8 Sep, 2014) held at Madras Veterinary College, Chennai. Stem Cells: An overview.*
12. *24<sup>th</sup> OPAI annual conference - Narayana Nethralaya, Bangalore (06 & 08, September-2013).*
13. *Simposium on Inherited retinal disease, Genetics & Newer treatments (26- 27, Oct-2013) held at Narayana Nethralaya, Bangalore- India. Cell based therapy: A retinal prespective.*
14. *Clinicians And Researchers in Vision & Epidemiological Sciences (CARVES) Meet & Workshop (5-7, Nov 2013) held by Aditya Jyot Eye Hospital- Mumbai. Ocular stem cells: Where are we?*
15. *Stem Cell Series Conference (23 Nov-2013) held Stanley Medical College, Chennai. Biomarkers of specific stem cells.*
16. *First Asian Debate on Keratoconus- Narayana Nethralaya, Bangalore (15 & 16, December-2012).*
17. *Max Delbrueck Center for Molecular Medicine Alumni Association, 6-8 Dec, 2012, Berlin, Germany*
18. *International Society for Genetic Eye Diseases and Retinoblastoma, held at Narayana Nethralaya,*

- Bangalore (14-16, Jan- 2011). Enrichment of pluripotent markers in cancer cell lines.
19. Indian Eye Research Group, Annual meeting, (11-12 July 2011) organized by LVPEI, Hyderabad. Corneal Collagen Cross-linking Procedure Leads to Apoptosis in Limbal Epithelial Cells.
  20. AOCMF Advanced Innovations Symposium & Workshop on Technologic Advances in Head and Neck and Craniofacial Surgery (8-11, Dec-2011) held by Mazumdar Shaw Cancer Center-Bangalore.
  21. Epithelial/Adipose Stem Cell Biology. AOCMF Advanced Innovations Symposium & Workshop on Technologic Advances in Head and Neck and Craniofacial Surgery (8-11, Dec-2011) held by Mazumdar Shaw Cancer Center-Bangalore. Buccal Mucosal cells: An ocular application.
  22. International Cancer Research Symposium-2010 on Defining and Translating Science behind the Disease, 20-22 Dec, 2010, Rajiv Gandhi Center for Biotechnology, Trivandrum, India

#### CONFERENCE:

1. Pro-angiogenic property of vitamin d in hyperoxia conditions: a step towards treating early stage retinopathy of prematurity (stage i). Gairik Kundu, Rohit Shetty, Anand Vinekar, **Debashish Das**, Pooja Khamar. World Society of Paediatric Ophthalmology and Strabismus, Paris, France, September 13, 2019
2. Vitamin-D3 acts as a potent vascular inducer in hyperoxic insult: primary human retinal pigment epithelium. Murugeswari Ponnalagu, Murali Subramani, Anand Vinekar, Venkataramana Anandula, Asha Kiran Vathyar, Rohit Shetty, **Debashish Das**. XXIII Biennial Meeting of the International Society for Eye Research, Belfast, Northern Ireland, UK, September 9-13, 2018
3. Influence of Vitamin D and Vascular Endothelial Growth Factor in the Tears of Asian Indian Preterm Infants with Retinopathy of Prematurity. Anand Vinekar, Murugeswari Ponnalagu, Murali Subramani, Shivani Sinha, Venkataramana Anandula, Asha Kiran Vathyar, Rohit Shetty, **Debashish Das**. Association of Research for Vision and Ophthalmology, Hawaii, USA. April 29-May 3, 2018
4. Vitamin-d3 protects retinal pigment epithelium from hyperoxia insult. Murugeswari Ponnalagu, Murali Subramani, Venkata Ramana Anandula, Asha Kiran Vathyar Rohit Shetty, **Debashish Das**. Indian Eye Research Group - ARVO-India Chapter, 22nd Annual meeting” organized by Aravind Eye Hospital, Madurai, 29-30 July 2017
5. De-regulated Notch signaling in the lens capsules of eyes with pseudoexfoliation syndrome. Zia Pradhan, Lekshmi Krishna, Murali Subramani, Murugeswari Ponnalagu, Harsha Rao, Sushma Tejwani, Rohit Shetty, **Debashish Das**. World Glaucoma Congress, Helsinki, Finland, 28June-1July, 2017.
6. Altered epithelial cells in keratoconus and its implications in crosslinking. Krishna Poojita Vunnava, Rohit Shetty, Kamesh Dhamodaran, **Debashish Das**, Murali Subramani. Asia-Pacific Association for Cornea and Refractive Surgery, Ghangzhou, China. June 1-3, 2017.
7. Corneal epithelial differentiation: A paradigm shift in keratoconus. Krishna Poojita Vunnava, Rohit Shetty, Subramani Murali, Murugeswari Ponnalagu, Kamesh Dhamodaran, **Debashish Das**. Association of Research for Vision and Ophthalmology, Seattle, USA. May 6-10, 2017
8. Temporal effect of anti-VEGF treatment on Notch signaling pathway: An in-vitro study. Murali Subramani, Murugeswari Ponnalagu, Kamesh Dhamodaran, Nargis Begum , **Debashish Das**. National Seminar on “FRONTIES IN BIOSCIENCES” organized by P.G & Research Departments of Microbiology & Biotechnology, Tiruchirappalli, Tamil Nadu INDIA. 5th March 2016.
9. Anti-VEGF treatment modulated temporally retinal pigment epithelial functionality. Murali Subramani, Murugeswari Ponnalagu, Kamesh Dhamodaran, Nargis Begum , **Debashish Das**. National Seminar on “FRONTIES IN BIOSCIENCES” organized by P.G & Research Departments of Microbiology & Biotechnology, Tiruchirappalli, Tamil Nadu INDIA. 5th March 2016
10. A Notch-up: corneal epithelial differentiation. Kamesh Dhamodaran, Murali Subramani, Himanshu Matalia, Sabina Evan Prince, **Debashish Das**. International Conference On Transtional Medicine: Emerging Trends In Biomedicine, Biotechnology And Stem Cell Research. Held at: AMITY University,

Gurgaon, Haryana. AMITY University: 19th-20th Feb 2016

11. Anti-VEGF modulates the epithelial to mesenchymal transition in retinal pigment epithelial cells. Murugeswari Ponnalagu, Murali Subramani, Rajesh S Kumar, Rohit Shetty, **Debashish Das**. "Indian Eye Research Group - ARVO-India Chapter, 22nd Annual meeting" organized by LVPEI, Hyderabad, 25-26 July 2015
12. Anti-vegf modulates cellular proliferation in retinal pigment epithelial cells. Murali Subramani, Murugeswari Ponnalagu, Rajesh S Kumar, Rohit Shetty, **Debashish Das**. "Indian Eye Research Group - ARVO-India Chapter, 22nd Annual meeting" organized by LVPEI, Hyderabad, 25-26 July 2015.
13. Role of Cell Inherent Properties During Corneal Lineage Differentiation. Kamesh Dhamodaran, Himanshu Matalia, Rohit Shetty, **Debashish Das**. "Indian Eye Research Group - ARVO-India Chapter, 22nd Annual meeting" organized by LVPEI, Hyderabad, 25-26 July 2015.
14. Cancer stem cell-like cells in drug resistance of head and neck squamous cell carcinoma. Safeena Kulsum, Sindhu VG, Ramanan Somasundara Pandian, **Debashish Das**, Binay Panda, Wesley Hicks, Mukund Seshadri, Moni Abraham Kuriakose, Amritha Suresh. Proceedings of the AACR Precision Medicine Series: Drug Sensitivity and Resistance: Improving Cancer Therapy, Orlando, FL. Philadelphia. USA, 18-21 June, 2014
15. Differential systemic gene expression profile in patients with diabetic macular edema: responders versus non-responders. Shwetha Mangalesh, Supriya Dabir, **Debashish Das**, Jeyabalan Nallathambi, Naresh Yadav, Rohit Shetty. The Association for Research in Vision and Ophthalmology (ARVO), Orlando-USA 4-8, May-2014
16. Buccal mucosal epithelial cells: An ocular stem cell therapy application. Kamesh Dhamodaran, Himanshu Matalia, Evan Prince Sabina, **Debashish Das**., DST Sponsored 2nd National Conference on Emerging Trends and New Challenges in Biotechnology- A Multidisciplinary Approach. Held at: Dept of Biotechnology, MGR College. Hosur, Tamil Nadu. NCETNCB-2014: 19th-20th Feb 2014.
17. Effect of chemotherapy on drug resistant tumor initiating cells and their association with recurrence in head and neck squamous cell carcinoma. V.G. Sindhu, Simple Mohanta, Gangotri Sidappa, **Debashish Das**, Wesley Hicks Jr., Vishal Gupta, Amritha Suresh, Moni A. Kuriakose. The 4th World Congress of the International Academy Of Oral Oncology (IAOO), Athens, Greece 15-18 May, 2013.
18. Identification and expression of candidate genes in pseudoexfoliation. Dhamodaran Kamesh, Reshma Shetty, Subramani Murali, Vinay Patil, Bhujang K Shetty, **Debashish Das**. The Association for Research in Vision and Ophthalmology (ARVO), Seattle-USA 5-9, May-2013
19. Matrix Metalloproteinase-9 drives disease progression of Keratoconus. Ashwini rangnath, Rohit Shetty, Sharon D'Souza, Kareeshma Wadia, **Debashish Das**, Arkasubhra Ghosh. The Association for Research in Vision and Ophthalmology (ARVO), Fort Lauderdale-USA 5-9, May-2013.
20. Ocular Surface Reconstruction: Limbal, Conjunctival and Buccal Epithelial Stem Cells. Dhamodaran Kamesh, Subramani Murali, Reshma Shetty, Himanshu Matalia, Arokiaraj Vincent, Rohit Shetty, **Debashish Das**. 3rd International conference on stem cells and cancer: Proliferation, Differentiation and Apoptosis – Delhi, 27- 30, Oct-2012
21. Attended an India Stem Cell Conclave & Exhibition- Bangalore (6-7, Oct- 2012).
22. Science, Innovation, & Entrepreneurship, Indian Institute of Science-Bangalore (13 Sep -2012). mRNA Expression Profile in the Vitreous Humor of Proliferative Diabetic Retinopathy Patients. Subramani Murali, Dhamodaran Kamesh, Supriya Dabir, Rohit Shetty, **Debashish Das**. "Indian Eye Research Group - ARVO-India Chapter" organized by LVPEI, Hyderabad, 28-29 July 2012
23. Drug resistance signatures of tumor-initiating cells in head and neck squamous cell carcinoma (HNSCC). Sindhu V G, Simple Mohanta, Gangotri Sidappa, **Debashish Das**, Wesley Hicks Jr, Vishal Gupta, Amritha Suresh, Moni A Kuriakose, 8th International Conference on Head and Neck Cancer, Toronto, Canada, 21-25 July, 2012
24. Tumor initiating cells as indicators as marker of local recurrence in head and neck squamous cell

carcinoma. Simple Mohanta, Nirav Trivedi, **Debashish Das**, Wesley Hicks Jr, Vishal Gupta, Amritha Suresh, Moni A Kuriakose, 8th International Conference on Head and Neck Cancer, Toronto, Canada, 21-25 July, 2012

25. mRNA Expression Profile In The Vitreous Humor Of Proliferative Diabetic Retinopathy Patient. ). s. Supriya Dabir; **Debashish Das**; Murali S; Naresh Yadav; Rohit Shetty. The Association for Research in Vision and Ophthalmology (ARVO), Fort Lauderdale-USA 6-10, May-2012
26. To Evaluate The Efficacy Of Riboflavin As A Cyto-Protectant For Limbal Epithelial Cells Exposed To UV-A Radiation. **Debashish Das**; D Kamesh; S Murali; Arokiaraj A. Vincent; Rohit Shetty; Himanshu Matalia. The Association for Research in Vision and Ophthalmology (ARVO), Fort Lauderdale-USA 6- 10, May-2012.
27. The Notch Meeting, 27-1 Oct, 2009, Athens, Greece
28. 3<sup>rd</sup> Forum of European Neuroscience, Federation of European Society of Neuroscience, 13-17 July, 2002, Paris, France
29. 1<sup>st</sup> NeuroStemcell Annual Meeting, 1-4 April, 2009, Bellagio, Italy

#### **EDUCATION:**

- 2001-2005 **Max Delbrueck Center for Molecular Medicine and Freie University, GERMANY**  
**PhD Developmental Neuroscience**  
*Thesis title: CALEB, an activity-dependent down regulated molecule*  
*Thesis supervisor: Prof. F. G. Rathjen*
- 1999-2000 **University of Madras, INDIA**  
**M.Phil Genetics**  
*Thesis title: DNA polymorphism of human alpha-1-antitrypsin gene*  
*Thesis supervisor: Prof. G. Jayaraman (University Topper-Gold Medalist)*
- 1995-1998 **Birla Institute of Technology and Sankara Nethralaya, INDIA**  
**M.S. Medical Laboratory Technology**  
*Thesis title: Cytogenetic analysis of tumor mass in Posterior Uveal melanoma patients in India*  
*Thesis supervisor: Prof. G. Kumarmanickavel*

#### **PROFESSIONAL APPOINTMENTS:**

- Nov, 2010- Present** **Chief Scientist Basic Science R&D**  
*Narayana Nethralaya Eye Hospital, Bangalore, INDIA*  
Developed the stem cell research laboratory focusing on generating extramural grants, improved human resource with skills and acumen of the staff with training and teaching. Established techniques for translational research for cell based therapy using ocular stem cells. Coordination of interaction between researchers and clinicians for improving patient specific outcomes. Supervision of Ph.D as well as Master students for completion of their research work. Writing grants and manuscript for publication.
- April, 2009- Oct, 2010** **Senior Scientist**  
*Imgenex India Pvt Ltd., INDIA*  
Conceptualize and supervise product development, validation and customer interaction for personalized troubleshoot. Generate funds for research by extramural grants in aid. Initiate business development interaction with existing as well as new customers to the profile



**April, 2010- Oct, 2010**

**Visiting Researcher**

*Karolinska Medical Nobel Institute, Stockholm, SWEDEN*

Pursue research work, enhance presentation skills, writing manuscripts and drafts. Supervise projects of Master students and short term projects.

**March, 2006- Dec, 2008**

**Postdoctoral Fellow**

*Karolinska Nobel Institute, Stockholm, SWEDEN*

Conceptualize, execute and deliver projects and research driven queries to a conclusion, yielding publications in journal and conference presentations. Supervising younger students with proper inputs and initiation of collaboration across inter and intra-departmental groups.

**Oct 1999- Dec, 2000**

**Scientific Assitant**

*L. V. Prasad Eye Institute, Hyderabad, INDIA*

Worked on Government of India funded project on the molecular analysis of Acanthamoeba species isolates from environment and patients. Worked in collaborative project with Dr Ramesh Aggarwal, Center for Cellular and Molecular Biology, Hyderabad, INDIA and Dr Savitri Sharma, LVPEI, Hyderabad, INDIA.

**June, 1997-June, 1998**

**Research Internship**

*Sankara Nethralaya, Chennai, INDIA*

Worked in a project for thesis submission and also underwent training in genetic analysis, such as cytogenetics, genetic counseling, basic molecular biology techniques. Presented and defended thesis.

**ADDITIONAL ACHIEVEMENTS**

**MEMBERSHIP**

Life member Society of Biological Chemist of India

Life member Indian Society of Cell Biology

Life Member Odisha Bigyan Academy

Life Member Biotechnology Research of India

**GUIDESHIP**

Vellore Institute of Technology, Vellore, INDIA

Manipal University, Mangalore, INDIA

**PhD**

Completed: 2 (Guide:1; Co-guide:1)

**MS**

Completed: 7

**COMMITTEE MEMBER**

**EXPERT GRANT REVIEWER**

Narayana Nethralaya Ethics Committee

Member of Narayana Nethralaya Research Committee

ANR, Government of France

 : *dasdebashish@yahoo.co.uk*;  
 : *+919591889213*

Department of  
Science &  
Technology,

Government of India  
Department of Biotechnology, Government of India  
Indian Council of Medical Research, Government of India

#### AWARDS AND HONOURS

- ARVO Travel Award- 2012
- Best outgoing Student of University of Madras, M. Phil Genetics(Gold Medalist) - 1999
- **II**nd Best Oral Presentation in Indian Association of Medical Microbiologists -2002

#### TEACHING EXPERIENCE:

- \* Taught practical and theory classes for M.Sc Biomedical Genetics students, University of Madras.
- \* Supervised M.Sc project assistants during working at L.V. Prasad Eye Institute.
- \* Supervising M.Sc students under Biotechnology Consortium of India Limited in projects
- \* Supervising M.Sc students under Narayana Nethralaya Stem Cell Teaching and Training program

#### JOURNAL REVIEWER

Investigative Ophthalmology and Vision Research; Indian Journal of Ophthalmology; Scientific Reports; PLOS One; Stem Cell Research and Therapy; ACS Applied Bio Materials; International Journal of Nanomedicine; Cell and Molecular Biology Letters; Eye and Vision; RSC Advances; Journal of Oral Oncology; Cornea; Frontiers in Cell and Developmental Biology