

# CV

Name Dr. Nallathambi Jeyabalan

Designation Senior scientist

Date of birth 05/03/1980

Sex (M/F) Male

Education and Experience

Degrees conferred (begin with Bachelor degree)

| Degree | Institution conferring            | Field (s)                  | Year |
|--------|-----------------------------------|----------------------------|------|
| Bsc    | Madurai Kamaraj university, India | Chemistry, Botany, Zoology | 2001 |
| Msc    | Madurai Kamaraj university, India | Integrated Biology         | 2003 |
| PhD    | Madurai Kamaraj university, India | Biomedical science         | 2008 |

Other research training and experience especially establishing research qualification in area covered by this application including previous and present position:

| Degree                          | Institution conferring  | Field (s)   | Year             |
|---------------------------------|---|---|------------------|
| Senior scientist                | Narayana Nethralaya Eye hospital, Bangalore, India                          | Ocular genetics and molecular signaling             | 2012 to till now |
| Postdoctoral Research associate | Department of ophthalmology and Pathology, Duke University, Durham, NC, USA | molecular signaling                                 | 2010 to 2012     |
| Postdoctoral fellow             | Dept of Cell and Molecular Biology, Goteborg University, Sweden             | Animal model of eye disease and molecular signaling | 2008 to 2010     |
| Visiting Researcher             | Institute Cochin, Paris 75014, France                                       | Ophthalmic genetics                                 | 2006 to 2007     |
| Research Fellow                 | Aravind Medical Research foundation, Aravind Eye hospital, Madurai, India   | Ophthalmic genetics                                 | 2003 to 2008     |

**Details of research project being currently undertaken**

|       | Name of PI            | Name of sponsoring agency | Title of the project  | Total amount INR | Total period of support with dates From To                     |
|-------|-----------------------|---------------------------|---|------------------|--|
| PI    | Nallathambi Jeyabalan | DST-SERB Govt of India    | To understand the role of autophagic lysosomal pathway in the pathogenesis of pterygium | 45,33,800        | 25th December-2017 to 25th December-2020                       |
| PI    | Nallathambi Jeyabalan | DAE-BRNS Govt. of India   | Role of autophagy in keratoconus: An approach of therapeutic implications               | 34,87,050        | April 2017 to March 2020                                       |
| Co-PI | Nallathambi Jeyabalan | VELUX STIFTUNG            | Investigate resveratrol as a non-invasive therapeutic option in mitigating keratoconus  | 3.9 Crores       | January 15 <sup>th</sup> 2022 to January 14 <sup>th</sup> 2026 |

**Research Project completed:**

1. Startup research grant (2013-2016) to study “novel signaling pathways in Keratoconus” for young scientist by Department of Science and Technology (DST-SERB) Govt of India, New Delhi
2. ICMR (2015-2017) –Adhoc “To study the Genetics of Keratoconus funded by Indian council of Medical Research” Govt of India, New Delhi

**Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.**

| S.No | Name of Award                    | Awarding Agency         | Year |
|------|----------------------------------|-------------------------|------|
| 1    | Travel Grant award               | ARVO,USA                | 2016 |
| 2    | Young Scientist Award            | DST-SERB                | 2013 |
| 3    | Lawski Postdoctoral fellowship   | Lund university, Sweden | 2008 |
| 4    | Sandwich PhD visiting fellowship | French embassy India    | 2006 |
| 5    | Travel Grant award               | ARVO-India, Hyderabad   | 2005 |

## List of publications

**Publications: 25 Book chapter-1 Google scholar citations: 543, h index-14, i10 index-18**

### Publication related to area of research

- 1 Panigrahi T, Shivakumar S, Shetty R, D'souza S, Jacob E, Sethu S, **Nallathambi J**, Ghosh A. Trehalose augments autophagy to mitigate stress induced inflammation in human corneal cells. *Ocul Surf.* 2019 . (Impact factor-12.3)
- 2 Martin LM, **Nallathambi J**, Tripathi R, Panigrahi T, Johnson PJ, Ghosh A, Mohan RR. Autophagy in corneal health and disease: A concise review. *Ocul Surf.* 2019 (Impact factor-12.3)
- 3 Shivakumar S, Panigrahi T, Shetty R, Subramani M, Ghosh A, **Nallathambi J**: Chloroquine Protects Human Corneal Epithelial Cells from Desiccation Stress Induced Inflammation without Altering the Autophagy Flux. *Biomed Res Int.* 2018 (Impact factor-2.7)
- 4 Shetty R, Sharma A, Pahuja N, Chevour P, Padmajan N, Dhamodaran K, Jayadev C, M M A Nuijts R, Ghosh A, **Nallathambi J\***. Oxidative stress induces dysregulated autophagy in corneal epithelium of keratoconus patients. *PLoS One.* 2017 Sep 13;12(9):e0184628(Impact factor-3.8)
- 5 Porter KM, **Nallathambi J**, Liton PB. MTOR-independent induction of autophagy in trabecular meshwork cells subjected to biaxial stretch. *Biochim Biophys Acta.* 2014 Jun;1843(6):1054-62. (Impact factor-5.0)
- 6 Porter K, **Nallathambi J**, Lin Y, Liton PB. Lysosomal basification and decreased autophagic flux in oxidatively stressed trabecular meshwork cells: Implications for glaucoma pathogenesis. *Autophagy.* 2013 Jan 29;9 (4). (Impact factor-12.75)

### Recent publications

1. Shetty R, Mahendran K, Joshi PD, Jeyabalan N, Jayadev C, Das D. Corneal stromal regeneration-keratoconus cell therapy: a review. *Graefes Arch Clin Exp Ophthalmol.* 2023 Apr 19.
2. Jeyabalan N, Pillai AM, Khamar P, Shetty R, Mohan RR, Ghosh A. Autophagy in dry eye disease: Therapeutic implications of autophagy modulators on the ocular surface. *Indian J Ophthalmol.* 2023 Apr;71(4):1285-1291.
3. Jeyabalan N, Ghosh A, Mathias GP, Ghosh A. Rare eye diseases in India: A concise review of genes and genetics. *Indian J Ophthalmol.* 2022 Jul;70(7):2232-2238.
4. Chakrabarty K, Prashanthi KN, Shetty R, Argulwar S, Jeyabalan N, Ghosh A. Generation of iPSC line (GLNNFi001-A) from peripheral blood mononuclear cells of a patient with macular corneal dystrophy. *Stem Cell Res.* 2022 Jul;62:102789.
5. Gupta H, Malaichamy S, Mallapatna A, Murugan S, Jeyabalan N, Suresh Babu V, Ghosh A, Ghosh A, Santhosh S, Seshagiri S, Ramprasad VL, Kumaramanickavel G. Retinoblastoma genetics screening and clinical management. *BMC Med Genomics.* 2021 Jul 22;14(1):188.
6. Jeyabalan N. Commentary: Deciphering the association of intronic single-nucleotide polymorphisms of crystallin gene family with congenital cataract. *Indian J Ophthalmol.* 2021 Aug;69(8)
7. Murugeswari P, Firoz A, Murali S, Vinekar A, Krishna L, Anandula VR, Jeyabalan N, et al.,. Vitamin-D3 ( $\alpha$ -1, 25(OH) 2D3) Protects Retinal Pigment Epithelium From Hyperoxic Insults. *Invest Ophthalmol Vis Sci.* 2020 Feb 7;61(2):4.

6. Panigrahi T, Shivakumar S, Shetty R, D'souza S, Jacob E, Sethu S, Nallathambi J, Ghosh A. Trehalose augments autophagy to mitigate stress induced inflammation in human corneal cells. *Ocul Surf.* 2019 . (Impact factor-12.3)
7. Martin LM, Nallathambi J, Tripathi R, Panigrahi T, Johnson PJ, Ghosh A, Mohan RR. Autophagy in corneal health and disease: A concise review. *Ocul Surf.* 2019 (Impact factor-12.3)
8. Lekshmi K, Kamesh D, Murali S, Murugeswari P, Nallathambi J et.al, Protective Role of Decellularized Human Amniotic Membrane from Oxidative Stress-Induced Damage on Retinal Pigment Epithelial Cells. *ACS Biomater. Sci. Eng.*, 2019, 5 (1), pp 357–372(Impact factor-4.5)
9. Shivakumar S, Panigrahi T, Shetty R, Subramani M, Ghosh A, Nallathambi J: Chloroquine Protects Human Corneal Epithelial Cells from Desiccation Stress Induced Inflammation without Altering the Autophagy Flux. *Biomed Res Int.* 2018 (Impact factor-2.7)
10. Subramani M, Ponnalagu M, Krishna L, Nallathambi J, Chevour P, Sharma A, Jayadev C, Shetty R, Begum N, Archunan G, Das D. Resveratrol reverses the adverse effects of bevacizumab on cultured ARPE-19 cells. *Sci Rep.* 2017 Sep 25;7(1):12242 (Impact factor-4.2)
11. Shetty R, Sharma A, Pahuja N, Chevour P, Padmajan N, Dhamodaran K, Jayadev C, M M A Nuijts R, Ghosh A, Nallathambi J\*. Oxidative stress induces dysregulated autophagy in corneal epithelium of keratoconus patients. *PLoS One.* 2017 Sep 13;12(9):e0184628(Impact factor-3.8)
12. Battu R, Nallathambi J \*, Murthy P, Reddy KS, Schouten JS, Webers CA. Genetic analysis and clinical phenotype of two Indian families with X-linked choroideremia. *Indian J Ophthalmol.* 2016 Dec;64(12):924-929.
13. Nallathambi J, Clement JP. SYNGAP1: Mind the Gap. *Front Cell Neurosci.* 2016 Feb 15;10:32. (Impact factor-4.3)
14. Dhamodaran K, Subramani M, Nallathambi J, Ponnalagu M, Chevour P, Shetty R, Matalia H, Shetty R, Prince SE, Das D.Characterization of ex vivo cultured limbal, conjunctival, and oral mucosal cells: A comparative study with implications in transplantation medicine.*Mol Vis.* 2015 Jul 31;21:828-45. (Impact factor-2.25)