

## SOUMYA RAJ



### PROFILE

Date of Birth : 15-11-1989  
Gender : Female  
Religion : Hindu  
Nationality : Indian  
Marital Status : Married

Languages Known  
English and Malayalam

### CONTACT

D/o Rajan V S  
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Linkedin

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Research assistant and Genetic Technologist with ten years of experience in Genetics and Research, doing PhD in Zoology (Clinical Human Genetics). Proficient in prenatal and postnatal genetic diagnosis and research in human genetic disorders. Capable of creating and maintaining relationships, good communication skills, creativity and curious on new concepts.

### EDUCATIONAL QUALIFICATION

- MSc. Zoology (Clinical Human Genetics) from St. Aloysius College under Calicut University, September 2012 (87.70%).
- BSc. Zoology from Christ College under Calicut University, Kerala, April 2010 (89.40%).
- Plus Two from SNM Higher Secondary School, Moothakunnam, Ernakulam, Kerala, March 2007 (83.33%).
- SSLC from St. Anne's High School, Kottappuram, March 2005 (84.5%).

### WORK EXPERIENCE

- Currently working as **Research Assistant** and **doing PhD** at Jubilee Centre for Medical Research, JMMC & RI, Thrissur since 1<sup>st</sup> June 2015.
- Registered PhD under the supervision of Dr. Leyon Varghese, Christ college, Irinjalakuda, (Calicut University) from June 2016.
- Had been working as **Genetic Technologist** in Lifeline Genetics and Research Center, Department of Fetal Medicine, Lifeline Super specialty Hospital, Adoor, Pathanamthitta, Kerala from 03/12/2012 to 01/01/2015.
- Completed MSc. dissertation in **Cytogenetics** from St. Johns Medical College, Bangalore, under the guidance of Dr. Rema Devi, MS, MNAMS, PGDBE in 2012.
- Completed Project: **Summer Research Fellowship 2010** from Indian Academy of Sciences, Bangalore, under the guidance of Dr. E. Vijayan, FNASc., CUSAT.

## COMPUTER EXPERIENCE

MS Office (Word, Excel, Power Point)

Adequate working experience in Windows Environment

C programming Experience

## SKILLS

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### Cytogenetics

Peripheral Blood Lymphocyte culture,  
different types of banding (G banding, C banding, NOR banding)

High resolution banding, Micronucleus assay, Comet assay

Zeiss Fluorescence Microscope

Karyotyping, FISH (peripheral blood, bone marrow and tissue)

Pedigree analysis and genetic counseling

Softwares: Cytovision, Metasystems (IKAROS, ISIS), Applied Imaging

### Molecular Genetics

Isolation of DNA and RNA,

quantitation of DNA and RNA,

quantitation assay (QUBIT 2 fluorometer, multi-mode reader),

Agarose gel electrophoresis, PCR (Nested, gradient, multiplex)

Softwares: FINCHtv, Genesys, SNPstat, Haploview.

### Prenatal diagnosis

Karyotyping and FISH analysis in Amniocentesis,

Chorionic villi sampling, Product of Conception

### Animal Models

Balb/c mice

## ACHIEVEMENTS

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- Received **third prize in the International Conference on Advances in Genetic Diagnosis** in the Era of OMICS, held at Institute of Genetics & Hospital for Genetic Diseases, Osmania University, from 17<sup>th</sup> -18<sup>th</sup> June 2022.
- Received "**Young researcher fellowship- 2019**" constituted in the name of C Achuthamenon- C R Chandradutt to Young scholars 2019 at all Kerala Research project competition conducted by Costford, Thrissur.
- Received 'Appreciation award' from Jubilee Mission Medical college and Research Institute in 2022.
- Received 'Achievement award' from Jubilee Mission Medical college and Research Institute in 2019.
- Awarded **the best oral presentation award** in the 8<sup>th</sup> annual conference of Indian academy of biomedical sciences held at CSIR-NIIST, Trivandrum 2019, Topic: Genetics of cleft lip and palate patients from Kerala: A pilot study.
- Qualified PhD entrance conducted by Calicut University on June 2016 and registered PhD under the guidance of Dr. Leyon Varghese, as part- time research scholar at Christ college, Irinjalakuda.
- Awarded **Best Project Award in National Level Paper Presentation Competition** held at Mercy College, Palakkad

on 19<sup>th</sup> September, 2012. Topic: Influence of consanguinity on genetic disorders.

- Awarded **Summer Research Fellowship** 2010 sponsored by IASc (Bangalore), INSA (New Delhi) and NASI (Allahabad). Topic: Olfactory discrimination and learning in mice.
- Awarded **Top scorer prize** in B.Sc Zoology (M.P. Pathrose Memorial Endowment) in the year 2010 from Christ College, Irinjalakuda, Thrissur.

## CERTIFICATIONS

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- Presented a poster in the 8th annual International conference ‘Genetics and Genomics in Health and Diseases’ of the board of Genetic counseling India at University of Hyderabad held from 7 to 9 July 2023 entitled ‘Conventional and molecular cytogenetic analysis in patients with Klinefelter syndrome in a tertiary care center’
- Presented a paper in the International Conference on Advances in Genetic Diagnosis in the Era of OMICS, held at Institute of Genetics & Hospital for Genetic Diseases, Osmania University, from 17<sup>th</sup> -18<sup>th</sup> June 2022.
- Participated in the seminar, ‘Cytogenetics in Post-Natal Diagnosis of Genetic Disorders’,\_webinar organized by Sysmex Malaysia, Tuesday, 24 May 2022.
- Presented a poster in BGCI 2021, on topic ‘molecular analysis of super numerary marker chromosomes in turner syndrome’.
- Presented poster on CME on Genetics of Rare Disorders 1st March, 2020, ICCONS, Shornur, Palakkad, Kerala, organized by Indian Academy of Pediatrics, Kerala branch and departments of Neurogenetics and pediatrics, ICCONS, Kerala. Title ‘Molecular analysis of super numerary marker chromosomes in turner syndrome’.
- Presented a paper in the 8<sup>th</sup> annual conference of Indian academy of biomedical sciences held at CSIR-NIIST, Trivandrum 2019, Topic: Genetics of cleft lip and palate patients from Kerala: A pilot study.
- Participated in the webinar "MPS-2 Symposia: Unravelling the clinical enigma of Hunter Syndrome" on December 17<sup>th</sup> 2020 by Medcast.
- Delivered scholar talk, a webinar conducted by St. Aloysius College, Thrissur, on the Topic ‘Clinical Genetic testing: Application in infertility’.
- Completed certification course ‘Genetics and Society: A Course for Educators by American Museum of Natural History, 2020.

- Delivered scholar talk, a webinar conducted by Sparks, Zoology department, Christ college, Irinjalakuda on the topic ‘Genetics of orofacial cleft’ on 19<sup>th</sup> august 2020.
- Completed certificate online course on Research to publication by British Medical Journal 2020.
- Attended three days Hands on Training on ‘DNA Barcoding & Phylogenetic Analysis’ in association with National Facility for Biopharmaceuticals, Mumbai was conducted from 18<sup>th</sup> November 2019 to 20<sup>th</sup> November 2019.
- Participated in ‘Salisbury 19’, a workshop on SPSS conducted by department of Community medicine, JMMC& RI, Thrissur on 2018 September 23<sup>rd</sup> and 24<sup>th</sup>.
- Participated in the Hands-on Workshop on Cytogenetics and FISH organized by the division of Cancer Research, Regional Cancer Centre, Trivandrum, November 28-30, 2013.
- Presented a paper in National Symposium conducted on 2017 September 15, 16 in JMMC & RI “Genetics in clinical medicine” Chromosomal aberrations and *IRF6* gene polymorphism in orofacial clefts 54 – 58 (Soumya Raj, Leyon Varghese, Narayanan P V, Oshin Mathew, Reema Rose Alappat, Alex George, Suresh Kumar Raveendran and Varghese P R).
- Participated in the scientific program of Fetolife 2013 held at Cochin on 06/10/2013.
- Presented a Research paper in the National Conference on Modern Trends in Zoological Research on 25<sup>th</sup> and 26<sup>th</sup> March 2014. Topic: Molecular analysis in Wiskott Aldrich Syndrome- Prevention by Prenatal diagnosis in *WAS* gene.

## **PUBLICATIONS**

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1. Raveendran SK, Ramachandran L, Joseph L, Asokan AK, **Raj S**, George A, James J. A novel SRY gene mutation c. 266 A> T (p. E89V) in a 46, XY complete gonadal dysgenesis patient. *Andrologia*. 2019 Oct;51(9):e13377.
2. Preeji K.P., **Soumya Raj** and Thomas K.J. (2014) Olfactory discrimination, learning and memory in mice, *Scientia*, 10: 120.
3. **Soumya. R**, Sreelata N.B, Henry. P. Y, Anitha. S, Jisha. M.T, Aleena. R and Pappachan.S (2014) Prenatal diagnosis of Wiskott Aldrich syndrome by molecular analysis. *Proc. Nat Conf Modern Trends in Zoological Research ISBN No. 978-81-909551-8-8 pp 30-32.*
4. Ragitha TS, Sunish KS, Gilvaz S, Daniel S, Varghese PR, **Raj S**, Francis J, Kumar RS. Mutation analysis of *WNT4* gene in SRY negative 46, XX DSD patients with Mullerian

agenesis and/or gonadal dysgenesis-An Indian study. *Gene*. 2023 Apr 20;861:147236.

#### **MEMBERSHIPS**

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- Molecular Pathology Association of India
  - Member of the Indian Society of Human Genetics
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