

## BIODATA

1. **Name:** Dr. Asha Martin
2. **Date of Birth:** 23-09-1970
3. **Address:** Head, Dept. of Food Safety & Analytical Quality Control Laboratory (FSAQCL), CSIR-CFTRI, Mysore-20
4. **Telephone Nos,(Mobile / Office / Residence):** 0821-2514972(o) ; 9449029530
5. **Fax No. / e-Mail:** [ashamartin@cftri.res.in](mailto:ashamartin@cftri.res.in), fsaqcl@cftri.res.in
6. **Academic Qualifications:**

Degree	Year of Passing	University/Board	Div/Class/Grade
SSC	1985	St. Joseph's Convent, Nagpur, Maharashtra State Board.	Distinction (82%)
HSSC	1987	Hislop College, Nagpur, Maharashtra State Board.	Distinction (82.33%)
BSc	1990	Hislop College, Nagpur University, Nagpur.	First Class (73.8%)
MSc (Biochemistry)	1992	PGTD of Biochemistry, Nagpur University, Nagpur.	First Class (69.2%)
Ph.D. (Biochemistry)	1998	Nagpur University, Nagpur.	

### 7. Professional Qualifications

**2014- Till date** Head of the Department of FSAQCL, CSIR-CFTRI, Mysore,  
Director, Referral Food Laboratory, FSAQCL, Mysore  
Quality Manager for ISO 17025.

**2013-2014** Alternate Director, RFL, Mysore & Deputy Quality Manager

**2013- till date** Principal Scientist , FSAQCL, CSIR-CFTRI, Mysore.

**2009-2013** Senior Scientist, FSAQCL, CSIR-CFTRI, Mysore.

**2005-2009** Scientist-C FSAQCL, CSIR-CFTRI, Mysore.

**2002-2005** Scientist- B, FSAQCL, CSIR-CFTRI, Mysore

## 8. Professional experience

More than 20 years of experience out of which 15 years are in the field of Food safety and Quality Assurance in the Department of Food Safety and Quality Control Laboratory, at CSIR-CFTRI, Mysore, the nerve centre of food Safety and Quality in India.

1) As **Director of the Referral Food Laboratory**, CFTRI, Mysore designated by FSSAI, I ensure the quality and safety of food by giving science based opinions on food samples received from various court/port/ FSSAI Designated Officers under the provisions of the PFA/FSSA act and thus contribute in development and implementation of National food standards for domestic food business as well as imports.

2) As **Head of the Department of Food Safety and Quality Control Laboratory**, I lead a team of highly qualified scientists and Technical staff who are involved in research activities on various aspects of food quality and safety that benefits both the food industry and the academia.

3) As **Quality Manager & Management Representative ISO 17025**, I am responsible for providing reliable science backed analytical services to several food industries through the Customer Service Cell of the Institute.

4). Steering committee member of ISO 9001: 2008

5) .Steering committee member of ISO 14000:2004

6) **Chairman of FAD-28** “Test methods for food products” sectional committee of the Food and Agriculture Division of Bureau of Indian Standards (BIS)

7) **Principal Member** of the Technical committee on “Composition of Food Hygiene, safety management and other systems” Sectional committee (FAD-15)

8) **Member of the National Codex Expert committee** for collection and validation of data

Science backed opinions are given from time to time to different ministries like Ministry of Women and Child Development, MoEF & CC, and to FSSAI on issues related to Food Safety and Standards. Inputs are provided for several parliamentary questions. Inputs are given to

National codex committees on various food ingredients, additives, pesticide residues, microbiological contaminants, toxic metals, mycotoxins etc.

## 9. Research Experience

I am involved in basic and applied research in the area of food safety and traceability.

Successfully guided one student for his doctoral study in Biotechnology. Currently, I am guiding 3 Ph.D. students and my research areas include:

- Development of high throughput molecular methods for detection and identification of genetically modified organisms (GMOs) in foods, allergens and food pathogens to monitor food safety and traceability.
  - Genetic mapping of GMOs, Cloning of GMO specific sequences and creation of a plasmid library to be used as alternate reference materials for GMO quantitation
  - Studies on the effect of food processing on nucleic acid amplification
  - Cloning, expression and characterisation of wax ester synthases from sunflower
- Molecular insights into the biological significance of selected natural molecules in cardiovascular health.

## 10. Publications

1. \*Assessment of DNA degradation induced by thermal and UV radiation processing: Implications for quantification of genetically modified organisms. Rajashekhar V Ballari and **Asha Martin** (2013). Food Chemistry 141: 2130-2136: 382-389. IF: 4.05.

**\*Won the CFTRI Foundation Day Award for the Best Research paper published (2013-2014) in Basic Science Category by staff.**

2. A calibrator plasmid for quantitative analysis of insect resistant maize (Yieldgard MON 810). Rajashekhar V Ballari, **Asha Martin** and L R Gowda (2013). Food Chemistry 140: 382-389. IF: 4.05
3. Detection and Identification of Genetically Modified EE-1 Brinjal (*Solanum melongena*) by single, multiplex PCR and Real Time PCR. Rajashekhar V Ballari, **Asha Martin** and LR Gowda (2013). J Sci Food Agriculture 93: 340–347. IF: 1.714.
4. Detection of genetically modified soya and maize: Impact of heat processing. K.R. Vijayakumar, **Asha Martin**, LR Gowda and V. Prakash (2009). Food Chemistry 117, 514-521. IF: 3.39 ; Five year Impact Factor: 4.05;
5. A Polymerase Chain Reaction directed to detect wheat glutenin: Implications for gluten free labeling. Jaba Debnath, **Asha Martin** and LR Gowda (2009). Food Research International 42, 782-787. IF: 2.818.

6. Effect of traditional Indian household thermal processing operations on the 3-N-oxalyl L-2-3-Diaminopropanoic acid ( $\beta$ -ODAP) in grass pea (*Lathyrus sativus*) as determined by reverse phase high performance liquid chromatography. Rohini M., **Asha Martin** and LR. Gowda (2009). Journal of Food Composition and Analysis 22, 704-708.
7. A reverse phase high performance liquid chromatography method for analyzing of neurotoxin  $\beta$ -N-oxalyl-L- $\alpha,\beta$ -diaminopropanoic acid in legume seeds. R. Thippeswamy, **Asha Martin** and Lalitha R. Gowda (2007) Food Chemistry 101, 1290-1295. IF: 4.05
8. Evaluation and validation of commercial lateral flow strip test kits for detection of genetically modified herbicide tolerant soybean and insect resistant maize. Rajshekhar V. Ballari, **Asha Martin** and Lalitha R. Gowda (2006) In Biosafety: Issues and Challenges. pp 162-168. Editors: Desh Deepak Verma and Manoranjan Hota, Ministry of Environment and Forests, Government of India.
9. Determination of theanine in commercial tea by liquid chromatography with fluorescence and diode array ultraviolet detection. R Thippeswamy, Mallikarjun Gouda, Devaratha H. Rao, **Asha Martin** and Lalitha R. Gowda (2006) J. Agric. Food Chemistry, 54(19) 7014-7019. IF: 3.10
10. Toxicity evaluation of insecticides to stored grain pest, Sitophilus oryzae (Coleoptera; Curculionidae). **Asha Martin** and E.R Martin (2002). Pollution Research, 22 (4): 465-467.
11. ). Study on Food Macromolecules by differential scanning calorimetry: A Critical Appraisal. **Asha John** & P.N. Shastri (1998). J. Fd Sci & Technology. 35:1-14. IF: 2.02.
12. GMO detection initiatives at CSIR-CFTRI: Challenges and way forward” in the global symposium on GMO detection methods and reference materials, Minneapolis, Minnesota U.S.A., Aisha Siddiq, Rajashekhar Ballari and Asha Martin (2015). 15-Oct- 16-Oct-2015
13. Increasing emphasis on food testing for contaminants, pathogens and allergens. **Asha Martin**. Food and Beverage News, Saffron media, June 16, 2016

## 11. Details of awards / other National /international recognition won , if any

Excellent academic record in school, college and university level

1. Awarded the **National Merit Certificate** by the Govt. of India in 1985 in recognition of the high position secured in the Senior Secondary School Certificate (SSC) examination.
2. Qualified the National Level Exam of General Aptitude Test in Engineering (GATE-94). Awarded the **Junior Research Fellowship in 1995 and Senior Research Fellowship** in 1997 for pursuing doctoral study in Biochemistry by the University Grants Commission (UGC), New Delhi.
3. **Ranganna Setty Memorial Award** for Best MSc Food Tech Investigation thesis (2014) entitled “Detection of gluten contamination in gluten free food products using polymerase chain reaction” carried out at CFTRI under my supervision and guidance
4. **CFTRI Foundation Day Award** – 2014 for the **Best Research paper** published in Basic Science Category by staff

5. **Food Safety Expert** for the Safety Parliament of National Safety Science Quiz 2014 organised by National Council of Science Museums, Ministry of Culture, Govt. of India on 14<sup>th</sup> November, 2014.
6. **Chairman of FAD-28** “Test methods for food products” sectional committee of the Food and Agriculture Division of Bureau of Indian Standards (BIS)
7. **Principal Member** of the Technical committee on “Composition of Food Hygiene, safety management and other systems” Sectional committee (FAD-15)
8. **CSIR-CFTRI open day 2015 for the Best display award-** Successfully led the Department of FSAQCL by winning the 1<sup>st</sup> place in the People’s Choice category.
9. Received the **Col. O.P Kapoor 2016 award (Citation and Rs. 15,000 cash award)** for contribution in the field of food Safety by the All India Food Processors Association (AIFPA), New Delhi.
10. Member of the **National Food Analyst Examination Board** notified by the **Gazette of India** dated July 29, 2016.
11. Member of the School board of Life Sciences, Pondicherry University.
12. Expert Member of Technology and Innovation forecasting committee (TIFAC), DST for Technology foresight for agro food processing in India.

## **12. Membership of Professional bodies / Association**

- Society of Biological Chemists (India): Life member.
- Association of Microbiologists (India): Life member.
- Academic Council Member of Board of Studies (MSc Food Technology), CSIR-CFTRI, Mysore
- Member of Board of Studies (Food Science), Pondicherry University, Puducherry.

## **13. Details of National / international conference**

### **International Conference**

1. Global symposium on GMO detection methods and reference materials organised by AACC and Croplife International at Minneapolis, Minnesota, USA on 16-17 October 2015.

### **National Conference/Symposium**

1. Workshop on “Safe Food for the cleanest city in India” for street vendors held on 17<sup>th</sup> March 2016 at CSIR-CFTRI, Mysore.

2. CEO's meet on Make in India in Food Processing- Initiatives by CSIR-CFTRI, on 4<sup>th</sup> Jan 2016 at CSIR-CFTRI, Mysore.
3. Invited talk "Safety concerns of emerging foods" on January 16, 2016 for the students from the University of Wisconsin, USA at CSIR-CFTRI, Mysore.
4. Consultative meeting on guidelines to enhance Safety and Quality of street foods organized jointly by WHO-India, Mysore city corporation and Foundation for community Support and Development in Mysore on 17-18 Dec 2015.
5. National Conference on Frontiers in MS Technology and Emerging Applications on Nov. 30, 2015 at ITC Grand Chola, Chennai organized by the Indian Institute of Chromatography and Mass Spectrometry.
6. Invited talk on "Food safety initiatives at CSIR-CFTRI: Challenges and way forward", September 10th, 2015, at Indo - Bangladesh Workshop on Food Safety organized jointly by CSIR and BCSIR, Bangladesh at CSIR-CFTRI, Mysore.
7. Invited talk on "Food safety: A shared responsibility", on May 29th, 2015, at the MSME meet 2015 Workshop on "Value added Agriculture and Food processing" at CSIR-CFTRI, Mysore.
8. Invited talk on "Food safety: From farm to plate, make food safe", on May 5th, 2015, at the State level Community medicine CME 15 on Food Safety at the Adichunchanagari Institute of Medical Sciences, Mandya.
9. Invited talk "Genetically Modified Foods: An Overview" on January 23, 2015, at the symposium on Recent Trends in Food Science & Technology, organized by TATA Chemicals Innovation Centre, Pune.

#### **14. Teaching experience**

- Associate Professor, AcSIR, Ph.D. Guide in Biological Sciences (AcSIR) and in Biotechnology (University of Mysore).
- Course Coordinator for three training programs on "Analytical Approaches to Food Safety and Quality" organized at CFTRI, Mysore for the officials from the Food and Nutrition Board, Ministry of Women and Child Development in June 2015.
- Faculty for the Integrated Nutritional Biology (AcSIR)  
Level 200- BIO CFTRI; Food Safety  
BIO-CFTRI – 1105 – Nutraceuticals and Functional Foods
- Faculty for Short Term training courses held at CFTRI

- Course coordinator for the subject Food Quality, Safety and Analysis for MSc Food Technology course at CFTRI
- Faculty for MSc Food Technology
- Paper setter and examiner for the University of Mysore in the subject Advances in food science for MSc Food Technology for the year 2015, 2016, 2017
- Paper setter and examiner for the University of Mysore in the subject Advances in food science for PG diploma in Food safety, quality and assurance for the year 2016, 2017.

**15. Major events organized as leader / coordinator.**

1. **Convenor** for the souvenir committee of the 85<sup>th</sup> Annual SBC meeting held on 21-24 Nov 2016 at CSIR-CFTRI, Mysore
2. **Chairperson** for the session on Genetics and Epigenetics at the Annual meeting of SBC (I) on 21-24 Nov 2016 at CSIR-CFTRI, Mysore
3. **Convenor** for the colloquium on Current Food Safety and regulatory concerns and 40 years of RFL at CSIR-CFTRI, Mysore on 28<sup>th</sup> Feb 2017
4. **Centre Superintendent** for the 3<sup>rd</sup> Food Analyst examination 2016 conducted at CSIR-CFTRI on 14-15 and 21-22 February, 2017.