

## CURRICULUM VITAE

**Dr. J.RAJESHA**



### **Current position**

Assistant Professor & Head  
Department of Biochemistry,  
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### **Mailing address**

# 1087, 1<sup>st</sup> Main, 1<sup>st</sup> Cross  
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Mysuru-570009, Karnataka,  
INDIA.

### **Personal details**

Date of Birth : May 05<sup>th</sup>, 1973

Sex & Marital status : Male, Married

### **Academics**

2004 - **PhD - Biochemistry**- University of Mysore, Mysore, Karnataka, India (July).

**Title of the thesis : “*Studies on Multidimensional Characteristics of  
Lignans from Flaxseeds of Indian Origin*”**

1997- **M.Sc. – Biochemistry**- University of Mysore, Mysore, Karnataka, India.

1995 - **B.Sc. - Majors : Biochemistry, Botany, Zoology.** University of Mysore, Mysore,  
Karnataka, India.

## **Professional Experience**

- 1) 1999 – Current      **Assistant Professor**, Department of **Biochemistry**, Yuvaraja’s College, University of Mysore, Mysore, INDIA.
  
- 2) 2000-2003 **Teacher Fellow** (Under Faculty Improvement Program to obtain Ph.D degree), Department of studies in Biochemistry, University of Mysore, Mysore, INDIA.  
  
Department of Biochemistry and Nutrition, and  
Department of Plant Cell Biotechnology, Central Food Technological Research Institute, Mysore, INDIA.
  
- 3) 1997-1998            **Junior Research Fellow**, Department of Plant Cell Biotechnology, Central Food Technological Research Institute, Mysore, INDIA  
(Worked on “*Downstream processing of Spirulina for superoxide desmutase and development of antioxidants for food application*”)
  
- 4) June-August, 1997 **Research Scholar**, Department of Studies in Biochemistry, University of Mysore, Mysore, India where I exposed to  
(Worked on “*Effects of chromium chloride on hepatic enzymes in mice*”)

## **Postdoctoral research experience**

2005-2006, Worked as a Postdoctoral Researcher at Department of Molecular Cell Biology, National Cancer Institute, National Institutes of Health, Frederick, Maryland, USA

## **Guide ship**

Recognized as a Research guide by the University of Mysore, Mysore. India to supervise students for their M Phil and PhD degrees in Biochemistry and Food Science and Nutrition.

### **Phd guidance :**

No. of students awarded : **01**

No. of students enrolled/registered : **05**

## **Teaching Interests**

**M.Sc. :** Biochemistry, Molecular Biology, Genetics, Food science and Nutrition, Nutraceuticals, Food Biotechnology, Functional Foods, Metabolic Biology of Foods & Chronic Disease Challenges.

**B.Sc. :** Biochemistry, food science and nutrition, Inorganic, organic and physical chemistry.

## **Research Interests**

The long term goal of my research program is to elucidate the role of bioactives responsible for their health benefits and/or adverse effects and the molecular, cellular and physiological mechanisms of their action. To investigate the role of phytochemicals, particularly phytoestrogens in disease prevention and health promotion, their various beneficial effects such as antioxidants, anticancerous and antimicrobial in the causation and prevention of chronic diseases, and development of nutraceuticals through value added biotechnological processes.

**Current projects** include investigating the role of phytochemicals such as phytoestrogens (**lignans, isoflavones and  $\beta$ - carotene**) and alpha and gamma- linolenic acids, and their biological potencies as alone and in combination. Molecular and Biochemical bioassay models using bacterial, mammalian and plant cell cultures and mice models to screen antioxidants, anti-microbial, anticancer and immune modulating phenolic phytochemicals and food models such as flaxseed, sesame seed and *Spirulina*.

## **Awards and Scholarships/Fellowships**

**1998-1999** - Junior Research Fellowship, University of Mysore, Mysore, INDIA.

**2000-2004** - Teacher Fellowship, University of Mysore, Mysore, INDIA.

## **Member of Editorial Board**

*International Journal of Nutrition and Food Sciences*

## **Professional Memberships**

Society of Biological Chemists, India (*Life member*).

Indian Science Congress Association, India (*Life member*)..

## Conferences Attended/ Papers Presented at Conferences / Symposia

### 1) **Proteins in Biology-Structure and Function.**

Sept-2000. Department of studies in Biochemistry. University of Mysore, Mysore, INDIA.

### 2) **Indian Convention of Food scientists and Technologists.** 12 & 13 Dec, 2002, Central Food Technological Research Institute, Mysore. INDIA.

- a) Flaxseed in designer / diet / omega egg production.
- b) Antibacterial activity of flaxseed fractions.

### 3) **The Brain Lipids Conference-2008.** 08-11 Sept, 2008. Oslo, Norway. “Effect of dietary flaxseed and *spirulina* on lipid profile and quality characteristics of egg in laying hens”

### 4) **“1<sup>st</sup> World Congress on Oxidative stress, Infertility & Degenerative diseases : Recent advances and Controversies.** 29<sup>th</sup> & 30<sup>th</sup> April, 2010, Lyon, France. “Hepato protective Potential of Extracts from Hull Fraction of Indian flaxseeds”

## Invited Lectures and Seminars

### 1) **National Symposium on Bioactive Molecules : From Discovery to Industry.**

6 & 7 Apr, 2009, Department of Studies in Biochemistry. University of Mysore, Mysore, INDIA. “Flaxseed and *Spirulina* as Bioactive Functional Foods”

### 2) **22<sup>nd</sup> Annual Conference of ISAR on “Cardiovascular Diseases Secondary to the Metabolic Disorder : Mechanisms & Therapy.** 17-19 Dec, 2009, Department of Studies in Biochemistry. University of Mysore, Mysore, INDIA. “Flaxseed as a Nutraceutical : Endosperm Fraction of Flaxseed in the Production of “Diet Eggs” or “Designer Eggs”.

## Article published

Flaxseed : A Smart Food Choice. **Science and Technology ; Deccan Herald**  
( National leading news paper, INDIA) Sept.18, 2007.

## Projects undertaken

### 1) **Synthesis and biological activities of Secoisolariciresinol diglucoside – University of Mysore, Mysore, India**

### 2) **Isolation And Purification of Nutraceuticals and Functional Food Ingredients From Indian Flaxseed Cultivars : Elucidation of Synergistic Effects of Bioactives-- Department of Science and Technology, New Delhi, India.**

- 3) Bioactives from Seeds of Indian Flax and Sesame cultivars : Critical investigations for Comprehensive Phytoestrogens - Submitted to **University Grants Commission, New Delhi, for funding.**

### **Grants**

- 1) Total as PI from 2009-2011: **INR. 1,000,00/**
- 2) Total as -PI from 2011-2014 : **INR.17,25,200/**
- 3) Total as -PI from 2012-2015 : **INR.13,78,800/**

### **Articles Published in Peer-Reviewed Journals**

- 1) Sunil G and **J. Rajesha** : Flaxseed: A Treasure Trove of Potential Bioactives for Disease Prevention and Health Promotion. **International Advanced Research Journal in Science, Engineering and Technology 4( 9), 2017: 54-63.**
- 2) Sadiq S. Mareai, Kavishankar Gawli and **Rajesha J** : Evaluation of the anti-inflammatory properties of secoisolariciresinoldiglucoside in a rodent model of joint inflammation. **International Journal of Pharma and Bio Sciences 7(4):(B), 2016 : 427-434**
- 3) Sadiq Moree, Kavishankar and **J. Rajesha** : Antidiabetic effect of Secoisolariciresinol diglucoside in normal and streptozotocin-induced diabetic rats. **Phytomedicine 20, 2013: 237–245**
- 4) Sadiq S. Moree and **J. Rajesha** : Investigation of in vitro and in vivo antioxidant potential of secoisolariciresinoldiglucoside. **Molecular and Cellular Biochemistry 373, 2013: 179-187**
- 5) Sadiq S Moree, Saukath ara Khanum and **Rajesha. J** : Secoisolariciresinol Diglucoside – A Phytoestrogen nutraceutical of flaxseed : Synthesis and evaluation of Antioxidant potency. **Free Radicals and Antioxidants 1(4), 2011 : 31-38.**
- 6) Sadiq S Moree and **Rajesha. J** Secoisolariciresinol Diglucoside (SDG): A potent multifarious bioactive phytoestrogen from flaxseed. **Research and Reviews in Biomedicine and Biotechnology2(3),2011:1-24.**
- 7) **J.Rajesha**, A. Ranga rao, B. Madhusudhan, G.A. Ravishankar and M. Karunakumar. Hematological and Histopathological studies of endosperm-rich fraction of Flaxseed in Chicks. **International Journal of Pharmaceutical sciences and Research 2(6), (2011) : 1455-1459.**

- 8) **J. Rajesha**, A. Ranga Rao, M. Karuna Kumar and G. A. Ravishankar : Hepatoprotective Potential of Hull Fraction from Indian Flaxseed Cultivar. **Asian Journal of Medical Sciences 1, (2010) 20-25.**
- 9) **J. Rajesha**, A. Ranga Rao , B. Madhusudhan and M. Karunakumar : Antibacterial Properties of Secoisolariciresinol Diglucoside Isolated from Indian Flaxseed Cultivars. **Current Trends in Biotechnology and Pharmacy 4, (2010): 551-560.**
- 10) **Rajesha J**, Madhusudhan B, , Mahadeva Swamy M , Jagannatha Rao R, Ravishankar G A, Rangarao A and Karunakumar M: Effects of flaxseed and *spirulina* biomass in layer diet on lipid profile and quality characteristics of egg yolk. **Journal of Food Science and Technology. 46(6), (2009) : 509-514.**
- 11) **J.Rajesha** and Basavaraj Madhusudhan. An approach to determine the content of SDG in flaxseed chutney powder by RP-HPLC method. **The Bioscan 3(2), (2008) : 231- 234.**
- 12) **J. Rajesha**, MA Harish Nayaka, Basavaraj Madhusudhan, MD Shylaja M Karuna kumar and GA Ravi Shankar : Antioxidant Potential of Secoisolariciresinol Diglucoside Isolated from Different Fractions of Flaxseeds. **Seed Science and Biotechnology 2(2),(2008): 83- 87.**
- 13) **Rajesha. J**, Kotamballi N.Chidambara Murthy, M. Karunakumar, Basavaraj Madhusudhan and Gokare A.Ravishankar : Antioxidant potentials of flaxseed by *in vivo* model. **Journal of Agricultural and Food chemistry 54, (2006) : 3794-3799.**
- 14) K.N. Chidambara Murthy, **J. Rajesha**, A. Vanitha, M. Mahadeva Swamy and G.A. Ravishankar : Protective effect of *Dunaliella salina*—A marine micro alga, against carbon tetrachloride-induced hepatotoxicity in rats. **Hepatology Research 33, (2005) : 313–319.**
- 15) K.N. Chidambara Murthy, **J. Rajesha**, M. Mahadeva Swamy and G.A. Ravishankar : Comparative valuation of hepatoprotective activity of carotenoids of microalgae. **Journal of Medicinal Food 8 (4), (2005) : 523-528.**
- 16) Kotamballi N.Chidambara Murthy, A.Vanitha, **J.Rajesha**, M.Mahadevaswamy, P.R.Sowmya and G.A.Ravishankar : *In vivo* antioxidant activity of carotenoids from *Dunaliella salina*- a green microalga. **Life Sciences 76, (2005) : 1381-1390.**

## MANUSCRIPTS IN CONFERENCE PROCEEDINGS

### **Conference Proceedings : 2009**

- **J.Rajasha** , B. Madhusudhan, M. Mahadeva swamy, R. Jagannatha Rao ,Gokare A. Ravishankar and M.Karunakumar. Flaxseed and Spirulina in Designer Eggs: a Potent Blended Functional Food and a Smart Food Choice. *IN BOOK “functional foods for chronic diseases, Volume 4” Edited by Dr. Danik M. Martirosyan, D&AInc./FF Publishing, 2009, 124-123-139.*
- Poster presentation on the topic ‘*Flax Seed: Food Ingredients*’ held during 18-19 February, 2015, at University of Mysore, *International Symposium on Chemical Biology Approach to Metabiomics, Chemical Genomics and Epigenomics and Second Annual Meeting of Chemical Biology Society, India.*
- Poster presentation on **Science & Technology : Future challenges and solutions** on the topic ‘*Flax Seed and Sesame seeds: Synergistic lignans*’ held during 8<sup>th</sup> to 9<sup>th</sup> August, 2016, at Vignana Bhava, University of Mysore. International Symposium on Chemical Biology Approach to Metabiomics, Chemical Genomics and Epigenomics and Second Annual Meeting of Chemical Biology Society, India.
- Participated in One day state level seminar on “*Innovations and Challenges in Nuclear, Chemical and Biochemical Sciences*” held on 24/7/2017 at St.Philomena’s College, an Autonomous college of University of Mysore, Mysuru, India.

### **REFERENCES :**

#### **1. Dr. BASAVARAJ MADHUSUDHAN**

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#### **2. Dr. GOKARE A. RAVISHANKAR**

Vice-President, Research & Development (Life Sciences) and Professor of Biotechnology  
Dayananda Sagar Institutions, Dr.C.D Sagar Centre for Life Sciences Shavige Malleswara Hills, Kumaraswamy Layout Bangalore-560078

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**3. Dr. K.KEMPARAJU**

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Yours sincerely

(J.Rajesha)