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Bharath Rathna Dr. B.R. Ambedkar Jayanthi Celebrated at CFTRI

The 117th Birth Anniversary of **Bharath Rathna Dr. B.R. Ambedkar** was celebrated on June 18, 2008 at CFTRI, Mysore by CFTRI SC/ST Employees Welfare Association in the Institute. The Hon'ble Union Minister of State for Social Justice and Empowerment, Government of India, New Delhi, Smt. Subbulakshmi Jagadeesan, graced the occasion as the Chief Guest. Shri. M. Shivanna, Hon'ble Member of Parliament, Chamarajanagara Constituency was also present. The event also included a special address by Dr. Banjagere Jayaprakash, writer and social reformer. The function was presided over by Dr. G. Venkateswara Rao, In-charge Director, CFTRI. Dr. G. Venkateswaran, President, CFTRI SC/ST Employees Welfare Association welcomed the



Chief guest of the day, Smt. Subbulakshmi Jagadeesan, Hon'ble Union Minister of State for Social Justice and Empowerment, Govt. of India, New Delhi addressing the audience

Chief Guest and the audience and Dr. S. Nagarajan, Secretary, CFTRI SC/ST Employees Welfare Association proposed the vote of thanks.

Constitutional framework with far sightedness, has taken the country into this era of equals with better opportunities and hand-holding of the needy and the unreachable.

The Hon'ble Minister highlighted the relevance of Dr. Ambedkar's vision for a highly cultured and educative Indian society, where everyone are treated equally in the rapidly growing competitive society. She also emphasized Dr. Ambedkar in providing the Indian

The celebration of birth Anniversary was also a special occasion for CFTRI SC/ST Employees Welfare Association as a separate Office Place in the CFTRI campus, was inaugurated by the Hon'ble Minister.



The 117th Birth Anniversary celebration of Bharath Rathna Dr. B.R. Ambedkar at CFTRI: Dr. G. Venkateswara Rao, In-charge Director, CFTRI, welcoming the Chief Guest and audience (L to R): Shri Shivappa S, Vice President, CFTRI SC/ST Employee Welfare Association; Dr. Nagarajan S, Secretary, CFTRI SC/ST Employee Welfare Association; Chief Guest of the day, Smt. Subbulakshmi Jagadeesan, Hon'ble Union Minister of State for Social Justice and Empowerment, Govt. of India, New Delhi; Shri M. Shivanna, Member of Parliament, Chamarajanagara; Dr. Banjagere Jayaprakash, Writer, Author & Social Reformer and Dr. Venkateswaran G, President, CFTRI SC/ST Employees Welfare Association are also seen



Welcoming the Chief Guest, Smt. Subbulakshmi Jagadeesan, Hon'ble Union Minister of State for Social Justice and Empowerment, Govt. of India, New Delhi by Dr. G. Venkateswara Rao, In-charge Director, CFTRI



Chief Guest, Smt. Subbulakshmi Jagadeesan, Hon'ble Union Minister of State for Social Justice and Empowerment, Govt. of India, New Delhi lighting the ceremonial lamp on the occasion of Dr. B.R. Ambedkar Jayanthi celebration. From (L to R): Dr. Nagarajan S, Secretary, CFTRI SC/ST Employee Welfare Association; Shri Shivappa S, Vice President, CFTRI SC/ST Employee Welfare Association; Shri M. Shivanna, Member of Parliament, Chamarajanagara; Dr. G. Venkateswara Rao, In-charge Director and Dr. Venkateswaran G, President, CFTRI SC/ST Employees Welfare Association are also seen

Inauguration of CFTRI SC/ST Employees Welfare Association Building by Smt. Subbulakshmi Jagadeesan, Hon'ble Union Minister of State for Social Justice and Empowerment, Govt. of India

On the occasion of 117th Birth Anniversary of Bharath Ratna Dr. B.R. Ambedkar celebration in the institute, Hon'ble Union Minister of State for Social Justice and Empowerment, Govt. of India, New Delhi, Smt. Subbalakshmi Jagadeesh inaugurated the CFTRI SC/ST employees Welfare Association Building in the CFTRI campus.

The Administration, Civil and Electrical departments coordinated the task and the building was refurbished to suit to the requirements such as a meeting room, new flooring, furniture and other infrastructure. Today,

the association has a place to meet and discuss the issues of welfare for SC/ST employees in the new premises at the CFTRI campus.

The Hon'ble Minister remarked that, all of us have to join together in solving social problems so that the unreachable in the society can benefit from the science, especially food science and value addition to the agricultural commodities through training and retraining at CFTRI from time to time. This synergy of CFTRI, training the trainers through identified personnel for building up the chain of value addition into the society, the role of associations such as CFTRI SC/ST Welfare Association is enormous in this context.



Frontal view of the CFTRI SC/ST Employees Welfare Association Building - **Bharath Ratna Dr. B.R. Ambedkar Bhavan** at CFTRI campus



Unveiling the Plaque by the Chief Guest, Smt. Subbulakshmi Jagadeesan, Hon'ble Union Minister of State for Social Justice and Empowerment, Govt. of India, New Delhi at the CFTRI SC/ST Employees Welfare Association of the premises. (Others in the picture from L to R): Shri Anbalagan K, CFTRI; Shri M. Shivanna, Member of Parliament; Dr. G. Venkateswara Rao, In-charge Director and Shri Shivappa S, Vice President, CFTRI SC/ST Employee Welfare Association are also seen



Ribbon-cutting ceremony by the Chief Guest, Smt. Subbulakshmi Jagadeesan, Hon'ble Union Minister of State for Social Justice and Empowerment, Govt. of India, New Delhi at the CFTRI SC/ST Employees Welfare Association of the premises; Shri M. Shivanna, Member of Parliament; Shri Shivappa S, Vice President, CFTRI SC/ST Employee Welfare Association and Dr. G. Venkateswara Rao, In-charge Director, CFTRI are also seen

CFTRI Foundation Day - 2008

The Institute organized the Foundation Day Lecture 2008 on October 23, 2008. Dr. S.M.H. Qadri, Director, Central Sericultural Research & Training Institute, Mysore graced the occasion as the Chief Guest. The Foundation Day Lecture titled “ **Sericulture - An Attractive Agro Enterprise**” was delivered by the Chief Guest. The presentation gave a holistic overview of the science and technology built into the making of silk, both with the inputs of traditional methods to that of the latest technologies including molecular genetics.

Dignitaries of the CFTRI Foundation Day on the dais: Dr. A.G. Appu Rao, Head, Protein Chemistry and Technology Department; Dr. S.M.H. Qadri, Director, Central Sericulture Research & Training Institute, Mysore and Dr. G. Venkateswara Rao, In-charge Director, CFTRI are seen

The function was presided over by Dr. G. Venkateswara Rao, In-charge Director, CFTRI. In his presidential address, highlighted the scientific and technological achievements of Institute over the years.

Dr. M.C. Varadaraj, Head, Human Resource Development Department welcomed the Chief Guest and audience. Dr. A.G. Appu Rao, Head, Protein Chemistry and Technology Department, wrapped up the session.



Kannada Rajyotsava Day Celebrated

Kannada Sahrudaya Balaga of CFTRI organized a cultural programme on November 16, 2008 in connection with *Kannada Rajyotsava Day* celebrations. Lyrical compositions of leading poets of Karnataka were set to music and the central theme of the poems were transformed into drawings by the well known artist, Mr. BKS Varma. Renowned poets Smt. Lakshmi Narayana Bhatta and Shri Doddarangegowda and music composer, Dr. A. D. Srinivasan contributed to

the success of the programme. The Officiating Director, CFTRI, Dr. G. Venkateswara Rao inaugurated the cultural event, Mr. K. K. Bhat, President of Balaga presided. Shri Rangadhamaiah, Secretary, welcomed the gathering. Shri S. Manjappa, Assistant Director, Department of Kannada and Culture, Shri Maddikere Gopal, President, Mysore District Kannada Sahitya Parishat and Lion M. Pratap were the chief guests.



Kannada Rajyotsava Day celebration (L to R) Shri Maddikere Gopal, President, Mysore District Kannada Sahitya Parishat; Dr. G. Venkateswara Rao, In-charge Director, CFTRI, Mysore; Shri K.K. Bhat, President, Kannada Sahrudaya Balaga, CFTRI; Shri S. Manjappa, Assistant Director, Department of Kannada and Culture, Govt. of Karnataka and Lion M. Pratap are also seen

Athermal process for the concentration of *garcinia* extract (US Patent No. 7431951)

Background

Garcinia (family: Guttiferae) is a large genus of polygamous trees or shrubs, distributed in tropical Asia, Africa, and Polynesia, In India, *Garcinia Pedunculata* is grown in North East part and Andaman Islands. The fruit rinds of *Garcinia* have been a good source of (-)-Hydroxycitric acid (HCA). The physiological and biochemical effects of (-)-HCA have been studied extensively for its unique regulatory effect on fatty acid synthesis, lipogenesis, appetite, and weight loss. The derivatives of (-)-HCA have been incorporated into a wide range of pharmaceutical preparations in combination with other ingredients for enhancing the weight loss, cardioprotection, correcting conditions of lipid abnormalities and enhancing the endurance.

About the Innovation

CFTRI has developed an athermal process of obtaining concentrated *Garcinia* extract by using osmotic membrane distillation (OMD). The process

include extracting the cut and dried rinds of the fruit, *garcinia pedunculata*, with de-ionized water filtration and osmotic membrane distillation to obtain concentrated extract.

The main advantages of this process are:

- It is a single step process for obtaining the concentrated free Hydroxycitric acid (HCA)
- This concentrated *Garcinia* extract is in its native form without being lactonized and derivatives of HCA like sodium, potassium and calcium salts facilitating better bioavailability
- This product does not undergo any thermal damage since the process is athermal, thereby enabling the product suitable for food and therapeutic applications
- This process is simple and easy to scale-up



Garcinia Species



Concentrated *Garcinia* Extract

Use of fraction from *Cinnamomum Zeylanicum* for preserving food (US Patent No. 7431958)

Background

Antioxidants are the compounds which when added to food products, specially to lipids and lipid containing foods, can increase the shelf life by retarding the process of lipid peroxidation, which is one of the major reasons for deterioration of food products during the processing and storage. Synthetic antioxidants, such as butylated hydroxyanisole (BHA) and butylated hydroxytoluene (BHT), have restricted use in foods as per food laws. Therefore, the importance of search and exploitation of natural antioxidants, especially of plant origin has greatly increased in recent years.

About the Innovation

The present invention relates to a use of brown color natural anti-oxidant fraction from fruit of the plant *Cinnamomum zeylanicum* for preserving the food articles, and a simple and efficient process for the preparation of an antioxidant fraction from

fruits of the plant. *Cinnamomum zeylanicum*, wherein the solvents can be regenerated, and lastly, the fraction per se.

It is a natural antioxidant from the unconventional parts of *Cinnamomum zeylanicum* viz., fruits using aqueous extraction and less unit operation is required to obtain antioxidant fractions.

The advantages of the process are:

- The solvents used in this process can be regenerated for further use
- The antioxidant fraction is prepared from unconventional parts of the fruit

Kennesaw State University (USA) students visit CFTRI

The undergraduate students of biotechnology from Kennesaw State University, visited CFTRI during July 23-31, 2008 as part of the **Study Abroad Programme** of the University. Dr. Premila Achar, Associate Professor in Biotechnology, accompanied the team. Hands-on practicals and demonstration in the area of

plant molecular biology, molecular detection methods for bacterial pathogens, biochemical and nutritional evidence through cell culture models, tissue culture techniques and recombinant DNA technology were held as part of the programme together with many interactive sessions.

Ph.D. degree awarded

The following research students and staff were awarded Ph.D. degree during October - November 2008.

- Reeta Davis
Studies on the molecular mechanism of polyhydroxyalkanoate biosynthesis in *Pseudomonas* species
(Guide: Dr. Arun Chandrashekar)
- Santhosh R Kanade
Molecular characterization and expression of an oxidase from field bean (*Dolichos lablab*)
(Guide: Dr. Lalitha R Gowda)
- Raju M
Enhancing the bioavailability of provitamin-A carotenoids from green leafy vegetables and conversion efficiency into vitamin-A by dietary modulators
(Guide: Dr. Baskaran V)
- Vanitha A
Cultivation of *Dunaliella bardawil* rich in carotenoids and studies on nutritional and biological activities
(Guide: Dr. Ravishankar GA)
- Umesh Hebbar H
Reverse micellar extraction for downstream processing of enzymes/proteins
(Guide: Dr. Raghavarao KSMS)
- Sandesh Kamath B
Biotechnological production of microalgal carotenoids with reference to astaxanthin and evaluation of its biological activity
(Guide: Dr. Sarada R)

Training programmes conducted at CFTRI

The following short-term training programmes were conducted during October - November 2008 in the institute.

- Food colours: Natural and Synthetic
(13 - 17 October 2008)
- HPLC & GC : Operation, maintenance and troubleshooting
(3 - 7 November 2008)
- Metrology Training Programme
(5 - 7 November 2008)
- Strategies towards improvement of microbial metabolites for industrial applications
(17 - 21 November 2008)
- Basics of flour milling and quality assurance of milled products
(17 - 21 November 2008)

For the details on the short term courses,

Please contact :

Head, HRD Dept.
CFTRI, Mysore - 570 020
email : stc@cftri.res.in

Visitor(s) to CFTRI

- Dr. Bina Joe, Associate Professor, Dept. of Physiology & Pharmacology, University of Toledo Health Science Campus, United States of America gave a talk on "Under pressure to locate genes controlling blood pressure" on October 13, 2008
- Prof. Marius Reglier, Head of Laboratoire de Bioinorganique Structurale, University Paul Cezanne Aix-Marseille, Cedex, France visited CFTRI on November 11, 2008. He had a discussion on "Role of food enzymes in valorisation of plant proteins for nutritional enhancement"
- Dr. A.G.F. Stapley, Senior Lecturer, Dept. of Chemical Engineering, Loughborough University, UK gave a talk on "Spray - Freeze - Drying of food products" on November 14, 2008
- Dr. Martin Hedstrom, Assistant Professor, Dept. of Biotechnology, Lund University, Sweden and Mr. Herald Kirsebom, Research Student, Department of Biotechnology, Lund University visited CFTRI recently. The team had discussion with Director and other scientists on nanotechnology, biosensor and pesticide residue detection using biosensors and biotechnological processes for value addition



CFTRI: An ISO 9001:2000, 14001:2004 and 17025:2005 (NABL) Organisation

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**LEADING IN INNOVATIVE R&D IN FOOD
SCIENCE AND TECHNOLOGY FROM
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(A constituent laboratory of Council of Scientific & Industrial Research, New Delhi)

**(The last issue of 2008 will be on the
stands shortly)**

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