

## Preface - Special Issue Dedicated to Prof. Hiriyakkanavar Ila



Prof. Hiriyakkanavar Ila

Dear Synthesis readers,

It's a great pleasure and honor for us to coordinate and contribute to the Special Issue in honor of Prof. Hiriyakkanavar Ila, celebrating her 80<sup>th</sup> birthday. Prof. Ila is an honorary professor at Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR) Bangalore.

Prof. Ila was born in Mathura, U.P. in 1944, and received her B.Sc. in 1962 and M.Sc. in 1964, from D. A. V. College, Kanpur. In 1964, she joined the Ph.D. programme at the Department of Chemistry, Indian Institute of Technology (IIT), Kanpur, under the supervision of Prof. M. V. George and was awarded the Ph.D. degree in 1968, being the first woman to receive a Ph.D. degree from IIT Kanpur. After a short postdoctoral work in 1969, with Prof. Roy L. Whistler, at the Department of Biochemistry, Purdue University, West Lafayette, Indiana, USA, she joined as a scientist at the Medicinal Chemistry Division at Central Drug Research Institute (CDRI), Lucknow in 1970. She carried out her research on 'nonsteroidal antifertility agents' and she was involved in the development of 'Centchroman', a selective estrogen receptor modulator (SERM). She continued in CDRI till 1977, and moved to the Department of Chemistry, North Eastern Hill University (NEHU), Shillong located in the north-eastern region of India, along with her husband Prof. H. Junjappa, an organic chemist, as a founder faculty member (as a lecturer, reader and professor), and developed a 'state of the art' Chemistry department there. In 1995, she moved to the Department of Chemistry, IIT Kanpur, her Alma mater, as a professor, and continued till 2006, till her superannuation. Prof. Ila moved to Bangalore in 2007, and joined 'Jubilant Biosys' a drug discovery company, as 'Principal Advisor- Medicinal Chemistry'. Later in 2010, she joined the New Chemistry Unit, Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore, as INSA Senior Scientist (2010-2014) and Hindustan Lever Research Professor (2015-2024). She is continuing at JNCASR as an honorary professor.

Prof. Ila has made significant contributions in the area of heterocyclic chemistry, designing new synthetic methods for five- and six-membered substituted and fused heterocycles based on novel organosulfur intermediates. She has also worked on developing new domino reactions, multicomponent reactions, and later she developed new synthetic methods for various heterocycles utilizing transition metal-catalyzed reactions. Her work has been highlighted in many reviews (Tetrahedron 1990, 46, 5423; J. Organomet. Chem. 2001, 624, 34). One of her significant contributions along with Prof. Junjappa, is on the synthesis of benzoheterocycles, involving a reverse approach via the construction of an aromatic ring on built-in heterocycle ring, which has appeared as 'Junjappa-Ila Aromatic and Heteroannulation' (Progress in Heterocyclic Chemistry 2001, 13, 1) and soon to appear in 'Organic Synthesis based on Name Reactions (2025)'. Her recent reviews (Chimia 2013, 67, 17) and account in Synlett 2024, 35, 2251, focus on her recent contributions to heterocyclic synthesis developing new organosulfur building blocks involving domino reactions and transition metal catalyzed reactions.

Prof. Ila has been recognized by several awards for her research contributions. She is a Fellow of the Indian Academy of Sciences, Bangalore (FASc, 1991) and a Fellow of the Indian National Science Academy, New Delhi (FNA, 2001). She was awarded the A. V. Rama Rao Foundation Prize (2001), the Chemical Research Society of India (CRSI) Silver Medal (2001) and the CRSI Lifetime Achievement Award Gold Medal (2019).

Prof. Ila is a widely travelled chemist both in India and abroad. She has been an Alexander von Humboldt (AVH) Fellow and has visited Germany several times, being closely associated with Prof. Lutz F. Tietze (University of Göttingen) and Prof. Paul Knochel (LMU Munchen). She has been a visiting professor at Locker Hydrocarbon Research Institute, University of Southern California, USA (2002), University of Sendai, Japan (2012) and Seville (Spain). She has been Scientific Editor (for India) of 'Arkivoc' journal, published from University of Florida (2006–2013). She has travelled to several countries (USA, Japan, Russia, Germany, Spain, Italy, Switzerland, Kuwait and Jordan), on lecture tours, delivering lectures in various national and international symposia. She has guided several Ph.D. students (65) and has 265 research publications in international journals.

Prof. Ila has served as member and convenor of several committees of the Council of Scientific and Industrial Research (CSIR), New Delhi and the Department of Science and Technology (DST), New Delhi, two main funding agencies for research projects in chemistry, as chairperson of project advisory committee (PAC) to support funding for promising organic chemists. She has been a council member of CRSI and the National Organic Symposium Trust (NOST).

Prof. Ila has trained most of her students with her passionate supervision and most of them are doing well professionally. Her knowledge and passion for chemistry have inspired generations of students in the chemistry world, especially women students, being one of the oldest woman scientists in India. She always encourages young researchers in chemistry to perform well in their areas. She still attends important chemistry conferences and modestly continues her research work.

The 80<sup>th</sup> birthday of Prof. Ila will be celebrated at Kenilworth Resort and Spa, Goa, with a two-day symposium in chemistry, organized by Prof. Chelvam Venkatesh (Indian Institute of Technology Indore) and Prof. S. Peruncheralathan (National Institute of Science Education and Research Bhubaneswar), covering all aspects of organic chemistry with several renowned speakers: Prof. Janine Cossy (ESPCI, Paris, France), Prof. Lutz Ackermann (University of Göttingen, Germany), Prof. Christoph Schneider (University of Leipzig, Germany), Prof. Yoshiji Takemoto (Kyoto University, Japan), Prof. Hiroyuki Nakamura (Institute of Science Tokyo, Japan), Prof. Samir Z. Zard (Laboratoire de Synthèse Organique Ecole Polytechnique, France), Prof. Svetlana Tsogoeva (Friedrich Alexander University, Germany), Prof. Oliver Reiser (University of Regensburg, Germany), Prof. Andreas Kirschning (Leibniz University of Hannover, Germany), Prof. Yasushi Nishihara (Okayama University, Japan) and other well-known chemists from India and abroad.

On behalf of all the contributors to this Special Issue of SYNTHESIS, including numerous of her former students, colleagues, and friends, we would like to wish her a happy birthday and all the best for the future, especially a good health for her and her family.

Best wishes,

Guest Editors,

Prof. Irishi Namboothiri, Indian Institute of Technology Bombay and

Prof. Chelvam Venkatesh, Indian Institute of Technology Indore



Prof. I. Namboothiri



Prof. C. Venkatesh