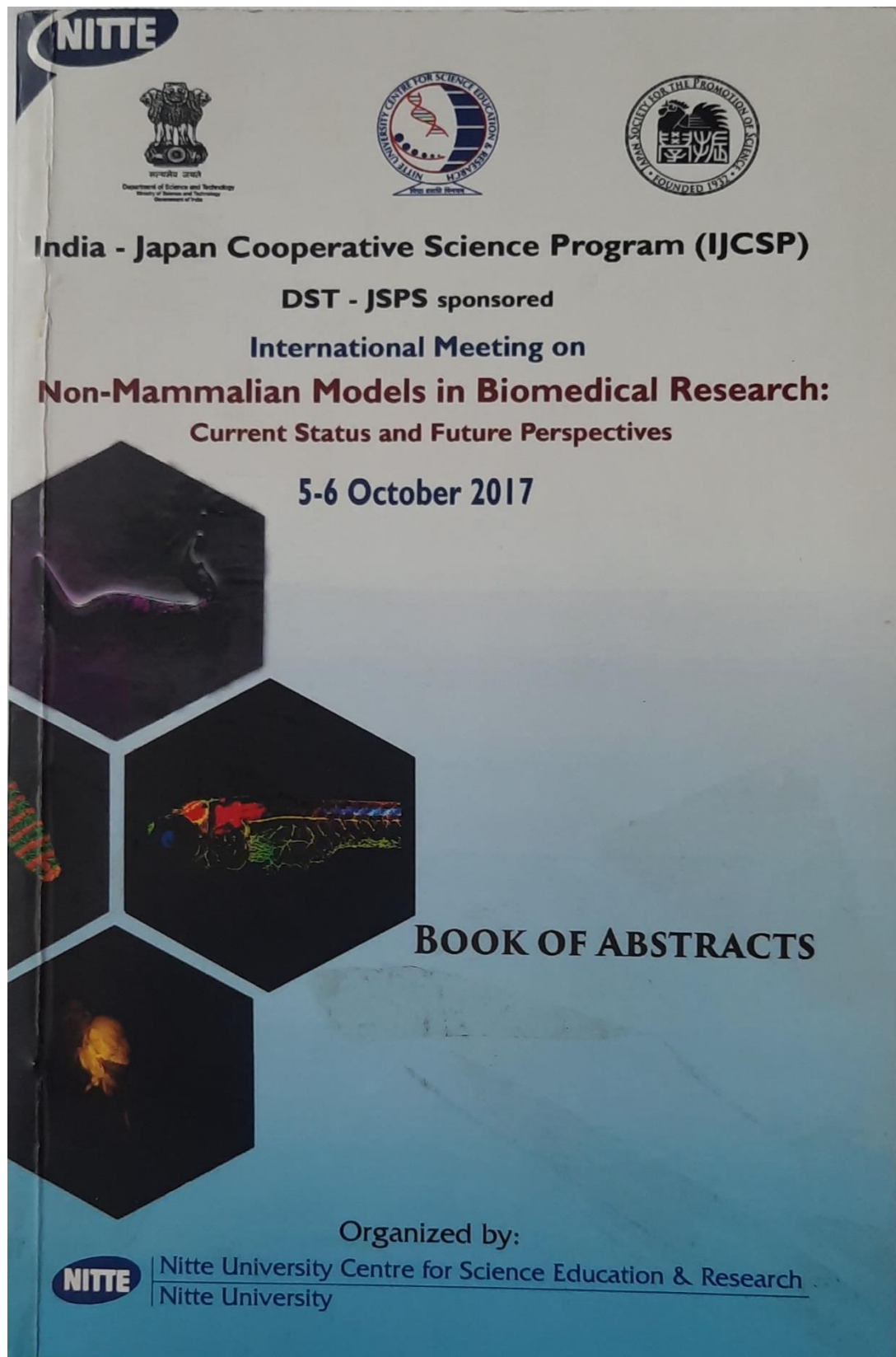


3.3.2. Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year wise during last five years

**Supporting Document**

**Year 2017-18**

1. Document for Criterion 3.3.2 - International Conference of Dr. Narshimamurthy Anegundi



*Authors Index*

- Aamir Nazir S16  
Akshata Rakshe P1  
Anurag Sharma S11  
Basavaraj B. Goundadkar P2  
Bibechana Pokhrel P3  
Chetana Sachidanandan S3  
Chinmoy Patra S9  
Chisato Usida S15  
D. Kar Chowdhuri S5  
Dechamma P.N P4  
Fathima Salwa P5  
Hideaki Matsui S4  
Himanshu Gupta P6  
Himanshu Joshi P7  
Jagdish Gopal Paithankar P8  
Kiranam Chatti S17  
Kiyoshi Naruse S13  
Krishnaswamy Balamurugan S14  
Lidwin D'souza P9  
Madhuri S. Kanetkar P10  
Makoto Kobayashi S7  
Mansee Thakur S8  
Murugesan Pooranachithra P11  
Naoya Kenmochi S1  
Narshimamurthy Anegundi P12  
Ragnavendra Belavatagi P13  
Rajasekharan Sharika P14  
Rajashekhar K Patil S6  
Shamprasad Varija Raghu S10  
Shrushti Wagh P16  
Sivakumar Gopalakrishnan P15  
Suma B.K P17  
Takanori Ida S18  
Upendra Nongthomba S2  
Vani Joshi P18  
Vinod Scaria S12  
Zonunsiami L. H. P19

Poster Number: P12

**Hydroxy and methoxy derivatives of coumarin manifest antiangiogenic activity in developing embryos of zebrafish (*Danio rerio*)**

Narshimamurthy Anegundi and Pancharatna Katti  
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Coumarins belong to the flavonoid class of plant secondary metabolites, which have pharmaceutical significance owing to their diverse biological (anti-proliferative, anti-microbial, anti-viral, anti-inflammatory, anti-diabetic and anti-oxidant) activities tested on cell cultures including cancerous cell lines. In the present study we made an attempt to investigate the relative antiangiogenic potentials of hydroxy and methoxy derivatives of coumarin employing embryonic angiogenesis of zebrafish (*Danio rerio*) as biological model. Developing embryos (n = 60) of *D. rerio* were exposed to graded (0, 1.0, 2.0, 3.0, 4.0 and 5.0 mM) concentrations of 4-hydroxycoumarin (4HC) or 7-hydroxycoumarin (7HC) or 7-methoxycoumarin (7MC) from gastrulation (5.25 hpf - hours post fertilization) stage until hatching (72 hpf); developmental trajectory of embryos/larvae was traced for a week. Exposure to coumarin derivatives caused an impairment in the patterning of intersegmental vessels (ISVs), dorsal aorta (DA), dorsal longitudinal anastomotic vessel (DLAV), posterior cardinal vein (PCV) and common cardinal veins (CCVs) accompanied by developmental anomalies like pericardial edema (4HC), declined heart rates, tail distortions and increased cellular apoptosis compared to controls. Among tested compounds 7HC exhibited greater antiangiogenic effects followed by 7MC and 4HC in developing embryos of zebrafish.



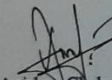
# India - Japan Cooperative Science Programme (IJCSP)

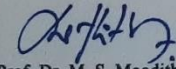


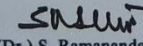
NITTE UNIVERSITY  
Mangaluru, India

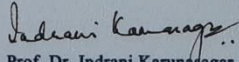
## Certificate of Participation

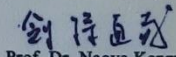
This is to certify that Dr./Mr./Ms. **Narashimamurthy Anegundi** ..... has participated and presented poster in the International Meeting on *“Non-Mammalian Models in Biomedical Research: Current Status and Future Perspectives”* held on 5-6 October 2017 organised by Nitte University Centre for Science Education and Research, Deralakatte, Mangaluru, India.

  
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