**STEFANO DEL DUCA- UNIBO**

Metric overview as based on Scopus (20/12/2023)

117 Documents by author

2328 Citations by 1238 documents

30 h-index

Personal web sites

Scopus: https://www.scopus.com/authid/detail.uri?authorId=6603469998

University website: https://www.unibo.it/sitoweb/stefano.delduca

ResearchGate: https://www.researchgate.net/profile/Stefano\_Duca

After the degree in Biology in 1987, he got the PhD in cellular biology and physiology at Bologna University. In 1995 he won a one-year fellowship from the Japan Society for Promotion of Sciences to spend at Chiba University (Japan); in 2001, 2002 and 2006 he worked for some time periods in Nottingham (UK); in 2003 at Fraunhofer in Schmallenberg (Germany) and in 2005 at Lleida (Spain) for a total of 7 months. He became researcher at the Faculty of Science MFN of Bologna University in 1997; in detail, he carried out its activity at the Department of Biology e.s. Since 2008 he is full professor of Botany in the same Department of Biology e.s., now at Department of Biological, Geological and Environmental Sciences.

His teaching activity is carried out at the Faculty of Science MFN in the Biology degree course (first and second level); in the past he taught also in the Faculty of Pharmacy in the CTF and pharmacy degree courses.

Since 2013 to 2019 he has been Chairman of the Biological Sciences Degree program.

He participated at International research project in the scope of ESF and of COST, at national project (FIRB, PRIN) and also at research project from Bologna University (Progetti Finalizzati e Strategici di Ateneo). He has been coordinator of Young Research Project and promoted the bilater project Italy-UK.

**Recent research project**:

• Responsible to manage RFO 2008-2022 University grants

• 2023: Principal Investigator of the project PRIN PNRR 22 entitled “Understanding tHE impAcT of heat STress On Pollen-pistil communication in crops (HEATSTOP)“. Project approved in August 2023.

• 2023: PRIN 2022 “ Deciphering global warming effects on reproductive biology of Mediterranean mandarins", responsible of UR of Bologna University. Project approved in July 2023.

• 2022: PNRR, CN-Agritech: responsible of the task 1.2.3 of the Spoke 1 of Bologna University. Project approved in 2022 and started on September 2022.

* 2021 Consiglio direttivo del Consorzio Interuniversitario per la Biologia Molecolare delle Piante

• 2021: Scientific director of the project funded by MIPAAF "Enhancement of Sustainable and Resilient Beekeeping to Climate Change". Project approved in November 2021.

• 2020: Participation in the PSR project "Characterization and enhancement of local fruit biodiversity and verification of innovative apple trees for mountain agriculture" (VALOFRUIT) funded by the E.R. Region.

• 2019: Italian head of the Italy-Poland bilateral project, "Functional characteristics from Transglutaminases in the pathobiology of *Phytophthora infestans*" funded by the Ministry of Foreign Affairs.

• Project PRIN 2015 “Investigating Self Incompatibility DEterminants in fruit trees (ISIDE) ”

• Grant ATENA (started in 2011, 3 years project), “New technological approaches to enhance the shelf-life and service content in important products of Mediterranean food model” coordinate by da Barilla Spa, in the behaviour of “New technologies for Made in Italy”, granted by Italian Minister of economic development.

• Main investigator of the Research Unit of the grant “My Darling Clementine”: an innovative healthy product from Calabria’s clementines and lemons”, the juice and nectar from anallergic fruits derived from Calabria’s Clementine and from Rocca Imperiale lemon, granted by POR-FESR 2007-2013 (European Grant for Regional Development). (started in 2010, 3 years project)

• Coordinator of application for EU project “RELIEF” (Novel approaches to a European-wide study of RELationships between atopic diseases In vulnerable groups and Environmental Factors) nell’ambito del Work programme: ENV.2011.1.2.1-1 Environmental change and its effects on atopic diseases (allergies, asthma, eczema) in Europe. The project has been involved 11 Countries from Spain to Ukraine, it passed all the evaluation thresholds, but non granted.

• Project PRIN 2007 “Studies on molecules involved in flower incompatibility and on their mechanism of interactions during the fertilization of fruit trees”

He has been a member of the executive board at the Department of Biology e.s. for nine years and from 2018 to today at the Department of Biological, Geological and Environmental Sciences.

He has been member of PhD professor committee of PhD courses in BIODIVERSITA' ED EVOLUZIONE and SCIENZE DELLA TERRA, DELLA VITA E DELL'AMBIENTE (years 2012-2016).

His scientific research is mainly devoted to study plant growth by cell division (cell cycle), by apical growth of pollen, the pollen-pistil interaction mechanisms, the cell differentiation (plant programmed cell death and in vitro morphogenesis) and salt stress in unicellular green algae. In many of these systems he studied the post-translational modification of proteins by polyamines. He detected, for the first time in plants, the enzyme transglutaminase and studied its role in the cytoplasm structural organization and in the chloroplast.

In recent years, his research interests are focused on the study of plant reproduction mechanisms, with particular attention to pollens, of which he also studies aspects related to their presence in the atmosphere and pollen allergies. It also studies the response of plants to various types of abiotic and biotic stresses.

He published 107 papers most of them on international Journals with IF and some reviews on polyamines, transglutaminase, pollen tube growth and pollen sensitization

(https://www.scopus.com/authid/detail.uri?authorId=6603469998).
He is referee for several international journals. He organized symposia and international congresses and has been invited as a speaker at international conferences on the subject pollen tube growth, polyamines and transglutaminases.

**Invited speaker**

2002: “7th International Conference on transglutaminase and protein crosslinking”, Ferrara.

2005: “8th International Conference on protein crosslinking and transglutaminase”, Lubeck (Germany).

2005: "XXXI Congresso Nazionale della Società Italiana di Istochimica", Pisa

2007: “9th International Conference on transglutaminases and protein crosslinking”, Marrakech (Morocco)

2009: ""Biogenic amines: biochemical, physiological and clinical aspects", Bertinoro (Forlì)

2009: "55° convegno GEI", Certosa di Pontignano, Siena

2010: "2nd International Conference on the role of polyamines and their analogs in cancer and other diseases", Tivoli (Roma)

2011: Workshop “floral biology and self-incompatibility in fruit species”,San Michele all'Adige (Trento), 21-25 June 2011.

2011: International Congress: Biogenic Amines: Biochemical, Physiological and Clinical Aspect, Alberè di Tenna (Trento), ITALY, September 21 – 25.

2012: International Congress on Polyamine; Polyamine: biological and clinical perspectives, Istanbul, September 2-7, 2012

2013: 2nd International APLE-APLF Congress in Madrid, 17-20 September 2013

2014: Società Botanica Italiana “INTERNATIONAL PLANT SCIENCE CONFERENCE” 109° Congresso, Firenze, 2-5 settembre 2014

2015: Medpalyno. Mediterranean Palynology Symposium GPSBI-APLE. Rome 8-10 September 2015

2019: Relatore al MACFRUIT 2019 “Selezione di mele ipoallergeniche per un’alimentazione di qualità e attenta alla salute dei consumatori”

2022: Società Botanica Italiana “INTERNATIONAL PLANT SCIENCE CONFERENCE” 117° Congresso, Bologna, 7-10 settembre 2014

**EDITOR FOR INTERNATIONAL JOURNALS**

Associate Editor for Frontiers in Plant Science, 2022, <https://www.frontiersin.org/my-frontiers/overview>

Guest Editor for the special issue on “Regulation of pollen tube growth Vol II” for Frontiers in Plant Science 2022; <https://research-topic-management-app.frontiersin.org/manage/27653/manuscript>

Guest editor for the special issue on “Pollen-Pistil Interaction” for IJMS, 2021 (<https://www.mdpi.com/journal/ijms/special_issues/Pollen_Pistil>)

Guest Editor for the special issue on “Regulation of pollen tube growth” for Frontiers in Plant Science 2020

([https://research-topic-management-app.frontiersin.org/manage/11857/manuscript](https://research-topic-management-app.frontiersin.org/manage/11857/manuscript?utm_source=F-RTM&utm_medium=TED2&utm_campaign=PRD_TED2_T1_MS-TOTAL-LABEL)

Guest editor for the special issue on “Pollen tube and reproduction” for IJMS, 2018 (<http://www.mdpi.com/journal/ijms/special_issues/pollen_tube>)

PUBBLICAZIONI

<https://www.scopus.com/authid/detail.uri?authorId=6603469998>

PUBBLICAZIONE DIDATTICA

Contributo originale per il testo universitario “Botanica-Fondamenti di Biologia delle piante”, Mauseth, II° edizione italiana (2006). Casa Editrice Idelson-Gnocchi, Napoli. ISBN 88-7947-434-0.

Contributo originale per il testo universitario “Botanica-Fondamenti di Biologia delle piante”, Mauseth, III° edizione italiana (2014). Casa Editrice Idelson-Gnocchi, Napoli. ISBN 978-88-7947-582-2.

Contributo originale per il testo universitario “Botanica-Fondamenti di Biologia delle piante”, Mauseth, IV° edizione italiana (2019). Casa Editrice Idelson-Gnocchi, Napoli. ISBN 978-88-79476980.