Curriculum Vitae

Roberto Bassi

1. PERSONAL INFORMATION

Date of birth: 22 February, 1955 (Vicenza), Italy
Single, 1 son
Nationality: Italian

Researcher unique identifier(s)
https://orcid.org/0000-0002-4140-8446

Languages: Italian (mother language), English (fluent)
French (fluent).

2. BIOSKETCH

Roberto Bassi was born in Vicenza (degree in Biology, 1977). Assistant Professor of Botany (tenured) in 1983. Associate Professor of Plant Physiology in 1992 (Urbino, IT, then Verona, IT), Full Professor in 2002 (Marseille, FR) and in Verona, IT (2005). Invited Professor in Paris, Geneva, Lausanne, Berkeley and Beijing. He founded and chaired the PhD programs in "Plant Biotechnology" (2000), in "Molecular, Industrial and Environmental Biotechnology", in "Biotechnology" and has been the Dean of the PhD School in Natural Sciences and Engineering, University of Verona. Member of the Scientific Councils of research institutions (CREA, SZN, CNR), he has been a Member of the Biotechnology and Biosafety committee of the Italian prime minister (2012-2016). He is a Member of *the Accademia dei Lincei*, *of* the *Academia Europaea (2013-), of the EMBO, of the Venetian Institute of Sciences, Letters and Arts and the Accademia dei Georgofili*. RB received the Baccarini-Melandri Award (1992), the von Humboldt Award (Berlin, 2009) and the Herlitzka Award for Physiology (2018). He served as a member of the Scientific Advisory board of *Stazione Zoologica Anton Dohrn* upon appointment by the Accademia dei Lincei from 2016 and then as president of the board since 2018. He has published more than 270 articles in international journals (HF=97) and has been an invited speaker at >120 international conferences. Presently, he is recipient of the ERC advanced grant GrInSun (2022-2027) for the study of the photosynthetic interface between sun and biosphere.

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Education

1977 Master Degree in Biology, University of Padua
1978 Course on Idrobiology. Chioggia (Venice)
1983 Cryotechnics in Electron microscopy and their biological applications. Istituto Superiore di Sanità (Rome)
1986 E.M.B.O. course on: Modern analysis of Biological Structures (Pavia).

Present Positions:
From 2005- Full Professor of Plant Physiology and Biochemistry – Department of Biotechnology, University of Verona
From 2016- Member/Chair (since 2018) of the Scientific Advisory Board of the Anton Dohrn Marine Station in Naples
From 2020: Vice-Chair of the committee: "Agriculture" of the National Academy of Sciences.
From 2021: Member of the committee: "Environment" of the National Academy of Sciences
2018-2023: Guest professor at LMBB, National Laboratory for Marine Science and Technology. Qingdao, China.

Past Positions:
1983-1985: Assistant Professor of Botany, Botanical Garden, University of Padua.
1985-1991: Assistant Professor of Plant Physiology, Department of Biology, University of Padua.
1992 : Associate Professor of Plant Physiology, Istituto Botanico, University of Urbino.
1993-2005: Associate Professor of Plant & Algal Physiology, Dipartimento Scientifico e Tecnologico, University of Verona.
2002-2005: Full professor of Biochemistry and Molecular Biology, Université Aix-Marseille II (Fr).
2005-ongoing: Full Professor of Plant & Algal Physiology, Dipartimento di Biotecnologie, University of Verona.

Further Academic appointments:
1984 – 1985 Visiting scientist at the Dept. of Physiology, Carlsberg Laboratory Kopenhagen(Dk)
1987- Visiting scientist at the Institute de Biologie Physico-Chimique. Paris (Fr)
1989 – 1990- Visiting scientist at the Department of Molecular Biology, University of Geneva (CH)
1996-1998-Lecturer, Université de Lausanne (CH)
2009-Visiting scientist at the plant phenotyping department of Juelich Research Centre (Ger).
2012- Visiting Research Professor. Institute of Biophysics of Proteins, Chinese Academy of Sciences (Beijing, China)
2017-Miller Visiting Professor. Department of Plant and Microbial Biology, University of California, Berkeley- USA
2018-ongoing: Guest professor at LMBB, National Laboratory for Marine Science and Technology. Qingdao, China.

Teaching
Current: Plant Biochemistry and Physiology (undergraduate); Bioenergy and Biofuels (graduate); Plant Stress molecular biology (graduate).
2005 – 2010: Plant Secondary Metabolism and bioengineering, Plant Biochemistry, Molecular Ecophysiology
2006 – 2009: General Biology (undergraduate).
2002 – 2004: Université Aix-Marseille II (France)-Biochemistry and Molecular Biology, Plant Cell Biology (4th year), Plant Molecular Biology (graduate) and General Biochemistry (undergraduate).
1996-1998: Photobiology (Université de Lausanne).
1987- Lecturer of Comparative Biochemistry.

Educational responsibilities
2000-2002 Founder and Chair of the phD program in "Plant Biotechnology", University of Verona
2003-2009 Founder and Chair of the phD program in "Molecular, Industrial and Environmental Biotechnology, University of Verona
2009-2013 Founder and Chair of the phD program in "Biotechnology", University of Verona
2019-2020 Dean of the PhD School in Natural Sciences and Engineering, University of Verona

Research and Organization:

2007-2010- Member of the Board of the ISPR (International Society of Photosynthesis Research).

2020 – 2023-Chair of the Habilitation Committee (ASN, Abilitazione Scientifica Nazionale) for Professors of Plant & Algal Physiology (Bio-04).

2001-ongoing-Member of the Board of the Italian Society of Plant Physiology

2007-2015- Member of the Scientific Board of the Italian Biofuels Platform.

2009-2019- Vice-President of the International Society of Photobiology

2007 – 2010- Member of the Board of the ISPR (International Society of Photosynthesis Research)

2012-2016 Member of the Italian Governmental Agency "National Committee for Biosafety, Biotechnology and Life Sciences"

2014- Member of the Panel for "Less is More" research program of Netherland Organization for Scientific Research.

2014- Member of the Panel for "ERA-CAPS"

2015: Panel Member for Deutsche Forshungsgemeinshaft grants Plant & algal Genetics & molecular biology.

2016: Panel Member for Research Grants in Plant & algal biology & biotechnology of Finland National Academy.

2013-2016- Member of the Scientific Advisory Board of the CREA (Agronomic Research Centre of Italy)

2016- Member of the Scientific Evaluation Committee of the CNR (National Research Council)

2017, 2018, 2019, 2021- Member of the jury for the International Award "LOMBARDIA È RICERCA" Milan, Italy

2019- Member of the jury for the International Feltrinelli Award for PHYSIOLOGY, Rome, Italy

2019- Member of the Jury for the Feltrinelli Award for HUMANITARIAN ACCOMPLISHMENT, Rome, Italy

From 2016- ongoing- Member/Chair (since 2018) of the Scientific Advisory Board of the Anton Dohrn Marine Station in Naples.

2019-ongoing: Member of the CID (Centre Inter-Academique pour de Developement) on behalf of the Accademia dei Lincei.

Besides, he has served in many panels for evaluation of grant proposals awarded by governmental institutions in France, Holland, Switzerland, Germany, Israel, UK and USA as well as been part of selection panels for recruitment/promotion of research scientists and University professors in the same countries (plus New Zeland, Australia, China).

Teaching

2011 – Ongoing: Plant Biochemistry and Physiology (undergraduate); Bioenergy and Biofuels (graduate); Plant Stress molecular biology (graduate).

2005 – 2010- Plant Secondary Metabolism and bioengineering, Plant Biochemistry, Molecular Ecophysiology

2006 – 2009- General Biology

1999 – 2001- Photobiologie (Université de Lausanne)

RB has served as teacher/professor in a number of International courses including: International School of Photosynthesis, International School of Photobiology, PhD courses in Italy, France, Switzerland, USA. Collège de France (Paris, Fr.)

Editorial Activity

Associated Editor of "***Molecular Plant***".

Chief Editor of Plant & Algal physiology of " ***Plants.***"

Previously, served as associate editor of *BMC Plant Biology*, *Journal of Phycology*, *Planta* and Journal of Integrative Plant Biology.

Organization of Conferences

Organizer/Chair of 20 international & national conferences, among which:

1997 1997: Co-chair of the "European Congress of Photobiology" Stresa (I).

1999: ESF (European Science Foundation) Conference on "Tetrapyrrole Photoreceptors". Castelvecchio Pascoli (I).

2001: Symposium "Pigment-protein gene expression", XI International Congress of Photosynthesis, Brisbane

2007: Symposium "Regulation of Light Harvesting Complexes", XIII International Congress of Photosynthesis, Glasgow

2007: Symposium: "Chloroplast and mitochondria" at the Meeting of the French Plant Biology meeting. Versailles.

2013: Conference on RENEWABLE ENERGY AND BIOFUELS: A BIOPHYSICAL AND BIOCHEMICAL APPROACH. Venice. Jan 28-Feb2nd

2016: Symposium "Light Harvesting Proteins" at the International Congress of Photosynthesis, Maastricht,

2017: Symposium "Light signalling and photoprotection" at the European Photobiology Conference. Pisa, I, Sept 1-6th

2019: Biophysics of Photosynthesis: from Molecules to the field. Rome, October 2-4th

Invited Lectures at International Conferences

Invited at >120 international Conferences. Below, a selection

1986-Seventh International Congress on Photosynthesis. Providence.
1987-EMBO workshop on Dynamics of Photosystem II. Jerusalem.
1989-Eight International Congress on Photosynthesis. Stockholm.
1991-International Congress on Chloroplast Development. Iraklion (Gr).
1992- IXth International Congress on Photosynthesis. Nagoya.
1993Harden Conference on: Photoinhibition-Molecular Mechanisms to the field: Essex.
1993 European Photobiology Congress. Marburg.
1994-N.A.T.O. Course: Light as energy source and information carrier in Plant Photophysiology. Volterra.
1995-Tetrapyrrole Photoreceptors. Freising (Ge).
199631st Wallenfels Meeting on : Modern Aspects of Photosynthesis Research. Wallenfels, (Ge)
1996- Jacques Monod Conference on: "Synthesis and Function of Photosynthetic Complexes" Aussoi (Fr).
1987EMBO workshop on Dynamics of Photosystem II. Jerusalem.
1989Eight International Congress on Photosynthesis. Stockholm.
1991International Congress on Chloroplast Development. Iraklion (Gr).
1992 - IXth International Congress on Photosynthesis. Nagoya.
1993Harden Conference on: Photoinhibition-Molecular Mechanisms to the field: Essex.
1993- European Photobiology Congress. Marburg.
1994-N.A.T.O. Course: Light as energy source and information carrier in Plant Photophysiology. Volterra.
1995Tetrapyrrole Photoreceptors. Freising (Ge).
1996-31st Wallenfels Meeting on : Modern Aspects of Photosynthesis Research. Wallenfels, (Ge) – 1996-Jacques Monod Conference on: "Synthesis and Function of Photosynthetic Complexes" Aussoi (Fr).
1996-European Science Foundation on: "Molecular Recognition in Photosynthesis" Jaca (SP).
1997-Tetrapyrrole Photoreceptors. Blarney, (Ir).
1997-European Congress of Plant Physiology. Firenze (I).
1998-European Bioenergetic Conference. Goteborg (S).
1998-EUCHEM Conference on " Phosphorylation in Photosynthesis" Sigtuna (S).
1998-European Science Foundation on: "Photosynthetic antenna systems " Tata (Hu).
1998-Xth International Congress on Photosynthesis. Budapest, H.
1998-Jacques Monod Conference on:"Regulation of Photosynthesis " Aussoi (Fr)
1999-Congress of the Society for Experimental Biology. Edinburgh, UK.
1999-ESF conference on: "Interactions between chlorophylls and carotenoids in Photosynthesis" Antalya, Turkey,.
1999-ESF conference on: "Non-Photochemical Quenching and the Xanthophyll Cycle - Mechanisms and Implications"

Rehovot, Israel.
2000-International Symposium: Ion Coupled Vectorial Processes. Dusseldorf (Ge).
2001-Gordon Research Conference on Carotenoids. Ventura (L.A.) USA.
2001-Tetrapyrrole Photoreceptors. Providence (USA).
2001-Photosynthetic antenna Systems. Surfer Paradise (Brisbane) Australia
2001- XIth International Congress on Photosynthesis. Brisbane Australia
2001-European Congress of Photobiology. Lillehammer Norway
2002-International Conference on Carotenoids. Honolulu, USA.
2002-Gordon Conference on "Biochemical aspects of photosynthesis" Boston, USA.
2002-Collège de France " Journée Européenne de photosynthese" Paris
2002-Natural and Artificial Photosynthesis (Royal Academy of Sciences, London U.K.
2002 -Conference of The Scandinavian Society of Photosynthesis, Umea, Swe.
2002-EMBO conference on: " Photosynthesis" Les Diablerets, January 26-31(CH)
2003-Signal Sensing and Plant Primary Metabolism. Potsdam, April 8-12
2004-Gordon Research Conference on Carotenoids. Ventura (L.A.) USA.
2004-Western USA Conference in Photosynthesis. Asilomar (San Francisco) USA.
2004-Satellite Meeting on Photosynthetic antenna complexes. Montreal (Can) –
2004-International Congress of Photosynthesis. Montreal (Can).
2004-Chemistry and Biology: the transition between two centuries. Rome, Accademia dei Lincei-
2005-Congres de la Societé Française de photosynthèse, Paris –
2005-6th International Conference on Tetrapyrrole Photoreceptors in Photosynthetic Organisms. Luzern,.
2006-(**Keynote speaker**) Conference of the American Society of Photosynthesis Woods Hole.
2005-European conference on Non-photochemical Quenching. Parsberg Ge.
2006-International Workshop on NPQ. Parsberg, Ge, ()
2007-International Congress of Photosynthesis. Glasgow (UK).
2007-Antenna proteins satellite meeting. Drymen (UK)
2007-Photosynthesis: from molecular mechanisms to the field. Jerusalem (Il) ().
2008-Gordon Conference on Photosynthesis-Mount Holyoke College in South Hadley, Ms, USA.
2008- Gordon Conference on Biogenesis of Chloroplasts and mitochondria- New England University, USA.
2008-Photosynthesis, Munich, (Ge).
2009-von Humboldt **award lecture**: Light Harvesting Systems of plants and algae: solar energy trasformation into food and biofuels. Bamberg,
2009-International conference on "Non-Photochemical Quenching" **Keynote lecture**. Parsberg (Ge)
2009 Photosynthesis Bichl (Ge).
2010-Gordon Conference on Carotenoids. Ventura (ca) Jan 17-22,
2010-Satellite Meeting on Light Harvesting Systems. Tianjin (China) August
2010-Nordic Photosynthesis Society Conference. Tartu (ES) Oct. 10-15th,
2011-International conference on "Non Photochemical Quenching" Passau (Ge) April
2011-International Carotenoid Society- Krakow (PL) July.
2011-Plant-Light interactions – Neuchatel (CH) August.
2011-Algal Biofuel Conference- Bielefeld (DE) September.
2011-International conference on Photosystem II- Chengdu (China).
2012-International Conference of Plant Molecular Biology. Jeju, Korea (October 21-27).
2013-XVI th Congress of Photosynthesis. St Louis, August 11-16th,.
2014-Symposium on algal photosynthesis (Amsterdam, Vrije University) march 13th,
Congress of the Italian Photobiology Society (Trento, June 11-13, 2014)
2014-ESP Photobiology School (Brixen) June 16-21st,
2014.International Symposium on the Regulation of Photosynthetic Function. Guilin, China, August 1721,.
2014- Symposium on "Regulation of Photosynthesis". XVIth International Congress of Photobiology. Cordoba, Argentina. September 7-13 th,.
2014. Symposium on "Bioengineering photosynthetic cells for Chemicals and Energy"XVIth International Congress of Photobiology. Cordoba, Argentina: Tom Moore, Roberto Bassi". September 7-13 th,.
2014-CeBiTec Research Conference Prospects and challenges for the development of algal biotechnology Bielefeld, (Germany) September 21st-24th,.
2015-Gordon Research Conference on Photosynthesis. Bentley.
2015-Symposium on NON-Photochemical Quenching. Sept 22-28th Dusseldorf (Ge)

2015-Symposium on “Regulation of Photosynthesis” Kyoto, Japan (October 28th-Non 1st,).
2016-International School on Biophysics. Jan 07-12.
2016-Gordon Research Conference on Carotenoids. Lucca, May 22-27th,.
2016-Satellite Conference on Light Harvesting Systems. Egmond aan Zee,NL, August 4-7th, International 2016-Conference on Photosynthesis, Maastricht. August 8-13,.
2017-European Conference on Photobiology, Pisa: Sept 11-14,.
2017-German Botanical Society, Kiel 17-09-
2017-International CeBiTec Algal Research Conference Sept 24-27th
2017-Sun to Biomass. Naantali (Fin) , Feb 20-23
2018-French Photosynthesis Society Conference, April 4-7th
2018-Molecular Plant International Symposium, Xian, China, June 12-15th
2018-Gordon Conference on Carotenoids, July 18-22nd
2018- World Conference on Biology- Beijing, China, October 10-17,
2019-9th International Conference on Algal Biomass, Biofuels, Bioproducts. Boulder, USA June 17-19.
2019-Gordon Conference on Photosynthesis. July 19-25th.

Awards and Honors

2021-Elected to membership of Venetian Institute of Sciences, Letters and Arts
2019-Elected to membership of the EMBO (European Molecular Biology Organization)
2018-Herlitzka Award for Physiology
2017-Elected to membership of the Accademia dei Georgofili
2017-Elected to Fellow of the International Carotenoid Society
2015-Elected to Membership at the Academia Europaea (section of Biochemistry and Molecular Biology)
2012-Elected to membership at the National Academy of Science of Italy “Accademia dei Lincei” (section of Biochemistry and Molecular Biology)
2012-Chinese Academy of Sciences: Distinguished Visiting Research Award at the Institute of Biophysics-CAS (Beijing)
2009-Helmholtz-Humboldt Research Award. From the Helmholtz Association and the Alexander von Humboldt Foundation
1996-Baccarini-Melandri Award. From the Italian Society of Plant Physiology

Entrepreneurship and patents

2020 International Patent: P1958PC “GENETIC STABILIZER AND GROWTH SELECTOR FOR GENETIC TRANSFORMATION OF THE CHLOROPLAST GENOME OF MICROALGAE” under EVALUATION. SUMITTED FEBRUARY 1ST 2021.

2019-Patent n. 10 2 0 180 0 0 0 0 9867. "TRANSGENIC MICROALGAE FOR THE PRODUCTION OF DEGRADATIVE ENZYMES OF THE PLANT CELL WALL HAVING A HEAT-STABLE CELLULOLYTIC ACTIVITY" awarded on october 12th, 2020.

2018- Co-founder and partner in the innovative start-up company “Enerzyme srl”

2021 R Bassi, Luca, Dall’Osto, M Benedetti. Transgenic microalgae for the production of plant cell wall degrading enzymes having heat-stable cellulolytic activity.
US Patent App. 17/288,559

Funding selected, from 2000.

(2002-2005).FIRB PLANT STRESS
(2003-2005) FISR (Special found for applied research) PLANT FUNCTIONAL GENOMIC (Genefun)) .
(2002-2005). CARIVERONA Foundation: NON-TRANSMISSIBLE PLASTID TRANSFORMATION FOR VACCINE EXPRESSION IN PLANTS
(2005-2008).FISR HYDROGEN PRODUCTION IN MICRO ALGAE- Idrobio
(2005-2008) Trento Science Foundation: PHOTOSYSTEM II STRUCTURE AND FUNCTION.
(2006-2008)PRIN-(National Research Found) DROUGHT AND HEAT STRESS IN WT AND TRANSGENIC MAIZE.
(2007-2011). FIRB-PARALLELOMICS
2005-2009) FISR- IDROBIO (.
(2005-2011). FIRB-GENOMICS OF SOLANACEAE
2009-2013). EEC FP7 "HARVEST" (
(2009-2013). EEC FP7 "SUNBIOPATHS"
(2010-2013).Cariverona "WATER RESOURCES"
(2011-2014) MIPAF (Ministry of agriculture-Italy): "BIOMASSVAL".
(2011-2013).MIPAF: "BIOHYDROGEN"
(2009-2011).PRIN 2008 "REGULATION OF PHOTOSYNTHESIS"
(2012-2015). EEC FP7: "ACCLIPHOT"
(2016-2019). EEC Horizon 2020: "S2B: SOLAR TO BIOMASS"
(2018-2021). PON – ORIGAMI: RAFFINERIA INTEGRATA PER LA PRODUZIONE DI BIODIESEL DA MICROALGHE
(2017- 2022) ENAC- CARBURANTI ALTERNATIVI PER L'AVIAZIONE CIVILE.
(2022-2027) ERC-advanced 2021. GrInSun- the green interface between Sun Energy and Biosphere

Publications

270 papers in ISI journals, 41 book chapters, H-index: 97, http://scholar.google.it/citations?user=-SNf1wMAAAAJ&hl=it citations: 25.800 (Skopus, Hf=78, IWS ,HF=80)

Selected papers:

Su, X, D Cao, X Pan, L Shi, Z Liu, L Dall'Osto, R Bassi et al.(2022) Supramolecular assembly of chloroplast NADH dehydrogenase-like complex with photosystem I from Arabidopsis thaliana. **Molecular Plant** 15 (3), 454-467

Bassi, R and L. Dall'Osto (2021) Dissipation of Light Energy Absorbed in Excess: The Molecular Mechanisms. **Annual Review of Plant Biology** 72, 47-76

Son, M, R Moya, A Pinnola, R Bassi, GS Schlau-Cohen (2021) Protein–Protein Interactions Induce pH-Dependent and Zeaxanthin-Independent Photoprotection in the Plant Light-Harvesting Complex, LHCII. **Journal of the American Chemical Society** 143 (42), 17577-17586.

L Genesio, R Bassi, F Miglietta (2021) Plants with less chlorophyll: A global change perspective. **Global change biology** 27 (5), 959-967

Angstenberger, M., F de Signori, V Vecchi, L Dall'Osto, R Bassi(2020)Cell Synchronization Enhances Nuclear Transformation and Genome Editing via Cas9 Enabling Homologous Recombination in Chlamydomonas reinhardtii. **ACS synthetic biology** 9 (10), 2840-2850

Ordon, J., M Bressan, C Kretschmer, L Dall'Osto, S Marillonnet, R Bassi and Johannes Stuttmann (2020) Optimized Cas9 expression systems for highly efficient Arabidopsis genome editing facilitate isolation of complex alleles in a single generation. **Functional & integrative genomics** 20 (1), 151-162

Guardini, Z., M. Bressan, R. Caferri R. Bassi and L. Dall'Osto (2020). Identification of a pigment cluster catalyzing fast photoprotective quenching response in CP29. **Nature Plants**, 6(3):303-313. doi: 10.1038/s41477-020-0612-8.

Girolomoni, L., Cazzaniga, S., Pinnola, A., Ballottari, M. and Bassi, R. (2019) LHCSR3 is a Non-Photochemical Quencher of both photosystems in Chlamydomonas reinhardtii. **Proc. Natl. Acad. Sci USA**, 116(10):4212-4217. doi: 10.1073/pnas.1809812116

R Bassi, EM Bucci, RA Calogero, P Carninci, G Ciliberto, P Conte, M. De Luca, G. Corbellini, A. Giordano, L. Marchionni, G. Massaro Giordano, A Parini, G. Sbardella (2019) Look for methods, not conclusions **Cell death & disease** 10 (12), 1-2

Kondo, T., A. Pinnola, John Ogren, R. Bassi and G. Schlau-Cohen (2017) Single-molecule spectroscopy of LHCSR1 protein dynamics identies two distinct states responsible for multitimescale photosynthetic photoprotection. **Nature Chemistry** 9 (8), 772-778.

Son, M., A Pinnola, R Bassi, GS Schlau-Cohen (2019) The electronic structure of lutein 2 is optimized for light harvesting in plants **Chem** 5 (3), 575-584

Pinnola, A., A Alboresi, L Nosek, D Semchonok, A Rameez, A Trotta and Bassi, R. (2019) A LHCB9-dependent photosystem I megacomplex induced under low light in Physcomitrella patens. **Nature Plants** 4 (11), 910-919

Dall'Osto, L., S. Cazzaniga, M. Bressan, D. Paleček, K. Židek, K. K. Niyogi, G. R. Fleming, D. Zigmantas and R. Bassi (2017) Dissipative response to excess light is catalyzed in monomeric and trimeric light-harvesting complexes by two independent mechanisms. **Nature Plants**. 2017 Apr 10;3:17033

Kondo, T, A Pinnola, WJ Chen, L Dall'Osto, R Bassi, GS Schlau-Cohen (2017) Single-molecule spectroscopy of LHCSR1 protein dynamics identifies two distinct states responsible for multi-timescale photosynthetic photoprotection **Nature chemistry** 9 (8), 772-778

Bressan, M., L Dall'Osto, I Bargigia, MJP Alcocer, D Viola, G Cerullo and Bassi, R.(2016) LHCII can substitute for LHCI as an antenna for photosystem I but with reduced light-harvesting capacity. **Nature Plants** 2 (9), 1-10

Wobbe L, R Bassi, O Kruse (2016) Multi-level light capture control in plants and green algae **Trends in Plant Science** 21 (1), 55-68

Pinnola A, Cazzaniga S, Alboresi A, Nevo R, Levin-Zaidman S, Reich Z, Bassi R. (2015) Light-Harvesting Complex Stress-Related Proteins Catalyze Excess Energy Dissipation in Both Photosystems of Physcomitrella patens. **The Plant Cell**, (11):3213-27

Schlau-Cohen, G. S. Ishizaki, A. Calhoun, T. R. Ginsberg, N. S., Ballottari, M., Bassi R. & Fleming G. R Elucidation of the timescales and origins of quantum electronic coherence in LHCII (2012). **Nature Chemistry** 4(5):389-95.

Ballottari, M., MJP Alcocer, C D'Andrea, D Viola, TK Ahn, A Petrozza, Cerullo, G. and Bassi, R. Regulation of photosystem I light harvesting by zeaxanthin. . **Proc. Natl. Acad. Sci USA** 111 (23), E2431-E2438

Grewe, S., M Ballottari, M Alcocer, C D'Andrea, O Blifernez-Klassen, R.Bassi and O. Kruse(2014) Light-Harvesting Complex Protein LHCBM9 Is Critical for Photosystem II Activity and Hydrogen Production in Chlamydomonas reinhardtii- **The Plant Cell** 26 (4), 1598-1611

Berger, H. O Blifernez-Klassen, M Ballottari, R Bassi, L Wobbe, O Kruse (2014) Integration of carbon assimilation modes with photosynthetic light capture in the green alga Chlamydomonas reinhardtii. **Molecular Plant** 7 (10), 1545-1559

Pinnola, A., L Dall'Osto, C Gerotto, T Morosinotto, R Bassi, A Alboresi (2013) Zeaxanthin Binds to Light-Harvesting Complex Stress-Related Protein to Enhance Nonphotochemical Quenching in Physcomitrella patens. **The Plant Cell** 25 (9), 3519-3534

Dall'Osto, L., M Piques, M Ronzani, B Molesini, A Alboresi, S Cazzaniga, Giuliano,G. and Bassi, R. (2013) The Arabidopsis nox Mutant Lacking Carotene Hydroxylase Activity Reveals a Critical Role for Xanthophylls in Photosystem I Biogenesis. **The Plant Cell** 25 (2), 591-608.

Formighieri, C., M Ceol, G Bonente, JD Rochaix, R Bassi (2012) Retrograde signaling and photoprotection in a *gun4* mutant of Chlamydomonas reinhardtii. **Molecular Plant** 5 (6), 1242-1262

Bonente, G., M. Ballottari, T. Truong, T. Morosinotto,T.-K. Ahn, G. Fleming, K. Niyogi and R. Bassi (2011) Analysis of LhcSR3, a protein essential for feed-back de-excitation in the green alga Chlamydomonas reinhardtii. **PLOS Biology 9(1)**: e1000577

Alboresi, A., Gerotto, C., Giacometti, G. M. Bassi, R*. and Morosinotto T. (2010) Heat dissipation in the moss Physcomitrella patens provides Insights on the evolution of protection mechanisms upon land colonization. **Proc. Natl. Acad. Sci. USA** 107 (24) 11128-11133. * corresponding author
Ahn, T.K., Avenson, T.J., Ballottari, M.,Cheng, Y-C, Niyogi, K.K., Bassi, R., and Fleming, G.R.(2008) Architecture Of A Charge-Transfer State Regulating Photosynthetic Light Harvesting In Plants. **Science** 320, 794-797.

de Bianchi S., Dall'Osto L., Tognon G., Morosinotto T. and Bassi R. (2008) The minor Antenna Proteins CP24 and CP26 control the interactions between Photosytem II subunits and the electron transport rate within grana membranes. **The Plant Cell**. 20 1012-1028

Dall'Osto L., Cazzaniga S., North, H., Marion-Poll A., and Bassi R. (2007) The aba4 mutant of Arabidopsis thaliana reveals a specific function for neoxanthin in protection against photooxidative stress. **The Plant Cell**, 19: 1048-1064.

Dall'Osto,L. Caffarri,S. Bassi, R. (2005) A mechanism of non-photochemical energy dissipation, independent from PsbS, revealed by a conformational change in the antenna protein CP26. **The Plant Cell**. 17(4):1217-32.

Finazzi, G. Johnson G. N., Dall'Osto L., Joliot, P. Wollman F.-A., Bassi R. (2004) A zeaxanthin-independent non-photochemical quenching mechanism localized in the Photosystem II core complex. **Proc. Natl. Acad. Sci. USA**, 101(33):12375-80

Bassi, R., Croce, R., Cugini, D., and Sandonà, D. (1999) Mutation analysis of an higher plant antenna protein provides identification of chromophores bound into multiple sites. **Proc. Natl. Acad. Sci USA**.96, 10056-10061

Popular science

Bassi, R. (2021) Energia dalle alghe.
https://www.youtube.com/watch?v=iKDhSc5t6Ig&ab_channel=enivideochannel
Bassi, R. (2021) Una fotosintesi più efficiente può battere la fame nel mondo 2021. **Informatore Agrario**, 24, 32-33
Bassi,R. Morelli, G and Salamini, F (2016) L'epidemia di Xylella in Puglia. **Sapere**, October 2016
Bassi R (1982): Miglioramento genetico dei vegetali e protezione della natura. **Ambiente, Risorse, Salute** 8, 24-28

July 20th, 2022

Roberto Bassi