

Publications List

Prof. Werner Arber

- 2018 –

Arber, W. (2018): Complexity of Life and its Dependence on the Environment. PAS Workshop on “Health of People, Health of Planet; our Responsibility” 2-4 Nov. 2017. (On-line).

Arber, W. (2018): Sustainable cohabitation of living organisms. In: Science and Sustainability. Impacts of Scientific Knowledge and Technology on Human Society and its Environment. Proceedings of the Plenary Session, Acta **24**, (25-29 November, 2016).

- 2017 –

Arber, W. (2017): Opening words of welcome. In: Children and Sustainable Development: A Challenge for Education. A.M. Battro, P. Léna, M. Sanchez Sorondo & J. von Braun (Eds.) Springer Verlag (2015).

Arber, W. (2017): Päpstliche Akademien engagiert in Umweltfragen. *Schweizerische Kirchen-Zeitung*, **5**, (Februar), 60-61.

Arber, W. (2017): Genetic engineering represents a safe approach for innovations improving nutritional contents of major food crops. *Journal of Innovation & Knowledge (JIK)* **2**, 87-89.

Arber, W. (2017): Einblick in die Naturgesetze der biologischen Evolution. In: *Natura Obscura*. K.M. Füglistner, M. Hicklin & P. Mäser (Eds.) Naturforschende Gesellschaft in Basel, Schwabe Verlag Basel, S. 14.

Arber, W. (2017): DNA sequence comparison can provide evidence for horizontal gene transfer. Proceedings of the Working Group, Workshop on Big Data and Science. Session 1-3: Biodiversity and Evolution. 17-18 November, Libreria Editrice Vaticana, Vatican City (2015). (*On line*)
<http://www.casinapioiv.va/content/accademia/en/publications/scriptavaria/bigdata.html>.

Hitz, C. and Arber, W. (2017): Gentechnik in der Landwirtschaft. Pro/Contra (Reportage bei Nina Baiker). Mehr Wachstum oder mehr Risiken? *Blickwinkel* **4**, 34-35.

- 2016 -

Arber, W. (2016): Microbial genetics reveals the natural laws driving biological evolution. (Abstract) 11th YES Meeting, Porto, Portugal, September.

Arber, W. (2016): Molecular Darwinism: Natural Strategies of Spontaneous Genetic Variation and their Specific Molecular Mechanisms. In: Reviews in Cell Biology and Molecular Medicine. R.A. Meyers (Ed.) Mannheim, Wiley-VCH Verlag GmbH & Co. KGaA. (In press)

- 2015 -

Arber, W. (2015): “Miteinander–füreinander” als Universitätsleitbild. Basler Zeitung, 12 Oktober, p. 13.

Arber, W. (2015): Racines et rôle de l’orientation éthique dans l’évolution culturelle passé et future. In : Sur le chemin de l’humanité. *Via Humanitatis*, Chapitre 5- Table Ronde. CNRS Editions, Paris, pp. 231-232.

Arber, W. (2015): Discussion on the paper by Jean-Michel Maldamé «Dignité et spiritualité de l’homme. In : Sur le chemin de l’humanité. CNRS Editions, Paris, pp. 538-539.

Arber, W. (2015): Word of Welcome. In: Sustainable Humanity, Sustainable Nature, Our Responsibility. P.S. Dasgupta, V. Ramanathan, M. Sánchez Sorondo (Eds.) Proceedings of the Joint Workshop (2-6 May, 2019). PAS Extra Series 41, Vatican City, Pp. 33-34.

Arber, W. (2015): Human-Nature Co-Evolution. In: Sustainable Humanity, Sustainable Nature, Our Responsibility. P.S. Dasgupta, V. Ramanathan, M. Sánchez Sorondo (Eds.) Proceedings of the Joint Workshop (2-6 May, 2014). PAS Extra Series 41, Vatican City. Pp. 49-54.

Arber, W. (2015): Summary of the Joint PAS/PASS Workshop on “Sustainable Humanity, Sustainable Nature: Our Responsibility”. In: Sustainable Humanity, Sustainable Nature, Our Responsibility. P.S. Dasgupta, V. Ramanathan, M. Sánchez Sorondo (Eds.) Proceedings of the Joint Workshop (2-6 May, 2014). PAS Extra Series 41, Vatican City. Pp. 677-680.

Arber, W. (2015): Towards a sustainable use of natural resources by respecting the laws of Nature. In: Complexity and Analogy in Science. Pontifical Academy of Sciences, Vatican City, Acta **22**, 242-247.

- 2014 -

Arber, W. (2014): Nachhaltige Entwicklung und/oder stetiges Wachstum? Basler Zeitung, September.

Arber, W. (2014): Eine Jugend auf dem Land. Beitrag für die Anthologie „Jugendjahre in der Schweiz 1930-1950“. Chapter 15. Friedrich Reinhardt Verlag, Basel.

Arber, W. (2014): Le Big Bang a une durée éternelle. Interview by Aurélie Coulon. Le Temps, No. 4885. Genève, Avril 2014, pp. 1-3.

Arber, W. (2014): The inventiveness of Nature: An interview with Werner Arber by Jane Gitschier. *PLOS Genetics* **10**(12), 1-5.

Arber, W. (2014): Forschungsnews für den Papst (Interview by Reto Siffert). Université de Fribourg. Unireflets. **5** Avril, p. 6.

Arber, W. (2014): Horizontal Gene Transfer among Bacteria and its Role in Biological Evolution (Review) *Life* **4**(2), 217-224.

Arber, W. (2014): Betrachtung über die Beziehungen zwischen den Wissenschaften und religiösem Glauben. Deutsche Uebersetzung einer am 13. Oktober, 2012 gehaltenen Rede an der Bischofssynode in Rom. *Acta Medica Catholica Helvetica* **1**/2014, Seiten 22-27.

Arber, W. (2014): Scientific notions and traditional wisdom on the evolution of the Universe and of life. In: Life and its Origin. Exploration from science and spiritual traditions. Section I: Physics and Chemistry of Life. T.D. Singh (Ed.), Bhaktivedanta Institute, Kolkata. Pp. 6-20.

- 2013 -

Arber, W. (2013): Past, present and future of gene research. Keynote presentation at the UNESCO Celebration 60 Years of the DNA Structure. June 10, Paris.

Arber, W. (2013): Traditional Wisdom and Recently Acquired Knowledge in Biological Evolution. In: The Missing Link: A Symposium on Darwin's Creation-Evolution Solution. R.A. Varghese (Ed.) University Press of America, Inc. Lanham, MD., pp. 187-197.

- Arber, W. (2013): Von Restriktionsenzymen, Evolutionsgenen und dem Beitrag der Naturwissenschaften zum Orientierungswissen unserer Zeit. Gespräch in Lindau mit Klaus Rehfeld, *Naturwissenschaftliche Rundschau* 66. Jahrgang, Heft 9, S. 463-467.
- Arber, W. (2013): Molekulare Scheren und Kleber: Restriktionsendonucleasen und DNA-Ligasen. In: *Biotechnologie für Einsteiger*. 4. Auflage. R. Renneberg and V. Berkling (Eds.) Springer-Verlag Berlin Heidelberg, pp. 85-89.
- Arber, W. (2013a): Il Darwinismo molecolare nel contest dello sviluppo sostenibile. In: *Si può parlare oggi di una finalità dell'evoluzione?* G. Auletta and J.S. Pons (Eds.) Gregorian & Biblical Press (Rome), Chap. I, pp. 29-37.
- Arber, W. (2013b): Molecular Darwinism in the context of sustainable development. In: *Si può parlare oggi di una finalità dell'evoluzione?* G. Auletta and J.S. Pons (Eds.) Gregorian & Biblical Press (Rome), Chap. XIII, pp. 259-266.
- Rech, E.L. and Arber, W. (2013): Biodiversity as a source for synthetic domestication of useful specific traits. *Ann. Appl. Biol.* **162**, 141-144.
- Rehfeld, K. and Feldwisch-Drentrup, H. (2013): Von Restriktionsenzymen, Evolutionsgenen und dem Beitrag der Naturwissenschaften zum Orientierungswissen unserer Zeit. Ein Gespräch in Lindau mit dem Nobelpreisträger Werner Arber. *Naturwissenschaftliche Rundschau*, 66. Jahrgang, Heft 9, 463-467.

- 2012 -

- Arber, W. (2012): Insight into the natural potency to evolve can indicate safe procedures for genetic engineering. (Keynote-2) 15th European Congress on Biotechnology, Istanbul, 24 Sept.
- Arber, W. (2012): Restriction enzymes: From their discovery to their applications. In: *Genetically Modified Organisms and Genetic Engineering in Research and Therapy*. P. Piguet and P. Poindron (Eds.) BioValley Monogr. Basel, Karger, Vol. 3, pp. 33-38.
- Arber, W. (2012): Genetic Variation and Molecular Darwinism. In: *Systems Biology: Advances in Molecular Biology and Medicine*. R.A. Meyers (Ed.), First Edition. Part II, Chapt. 6, Wiley Verlag GmbH, Weinheim, pp. 145-168.
- Arber, W. (2012): Contemplation on the relations between science and faith. Synod of Bishops. *The New Evangelization for the Transmission of the Christian Faith*, Paul VI Audience Hall, Vatican City, October.

Arber, W. (2012): Gentechnik: Ursprung, Konzept, Risikoevaluation und Zukunftspotenzial. In: Programmsynthese NFP 59. Nutzen und Risiken der Freisetzung gentechnisch veränderter Pflanzen. Vdf Hochschulverlag AG an der ETH Zürich. Mit Unterstützung des SNF. Pp. 118-121.

Arber, W. (2012): The sustainable development should carefully respect the laws of Nature guiding terrestrial and biological evolution. Special Issue „Rio + 20“, Journal “Solutions”, Rio de Janeiro, Brazil.

- 2011 -

Arber, W. (2011): The inherent potency to evolve reflects a natural law that is pertinent to all living organisms. In: The Human Animal: Procreation, Education, and the Foundations of Society. The Pontifical Academy of St. Thomas Aquinas. Proceedings of the X Plenary Session, Vatican City, 18-20 June (2010). *Doctor Communis* **1-2**, pp. 41-47.

Arber, W. (2011): Molecular Darwinism and its relevance for translational genetic research. In: The Scientific Legacy of the 20th Century. W. Arber, J. Mittelstrass and M. Sanchez Sorondo (Eds.) *Pontificiae Academiae Scientiarum Acta* **21**, Vatican City, pp. 215-220.

Arber, W. (2011): Molecular Darwinism: The contingency of spontaneous genetic variation. *Genome Biol. Evol.* **3**, 1090-1092.

Arber, W. (2011): Mother Nature cares actively for biological evolution. In: Evolutionism and Religion. E. Agazzi and F. Minazzi (Eds.) Mimesis Edizioni, Centro Internazionale Insubrico. Milano-Udine, pp. 25-32.

Arber, W. (2011): Bio-molecular evidences. In: Biological Evolution: Facts and Theories. A critical appraisal 150 years after "The Origin of Species". G. Auletta, M. LeClerc and R.A. Martinez (Eds.) *Analecta Gregoriana* 312, Gregorian & Biblical Press (Rome), **312**, pp. 81-93.

Arber, W. (2011): Bioengineering at the Interface between Science and Society. In: Comprehensive Biotechnology, M. Moo-Young (Ed.), Elsevier B.V., 2nd. Edition, pp. 5-10.