

## Maurizio Iaccarino Biographical Sketch

Born in Rome, Italy, March 23, 1938, married, four children.

M.D. degree, University of Naples, July 1962; post-doctoral fellow, Stanford University (1966-1968); visiting scientist, University of Sussex, U.K. (1978-1979).

Teaching qualification as Professor of Biological Chemistry, 1971; Professor of Microbiology since 1986; Member, Ph.D. program in Molecular and Cellular Genetics (1983-1996).

Staff scientist at the International Institute of Genetics and Biophysics, Naples; Director of the Institute April 1985 to December 1993; Director of the Institute of Molecular Genetics, Alghero, 1994-1995.

Member of the EMBO, TWAS and other scientific societies.

Winner of several prizes (Accademia dei Lincei and others), Honoris Causa Degree in biological sciences, University of Viterbo.

Co-author of more than 90 publications in international scientific journals, more than 100 scientific reports; editor of several books.

Research interests: protein structure and characterisation; DNA methylation; genetics and molecular biology of amino acid transport and biosynthesis; regulation of nitrogen fixation; molecular biology of the Rhizobium-legume symbiosis.

Organiser of many international congresses, workshops, practical courses.

Referee of papers for the major journals of the pertinent fields of research; member of the editorial board of FEMS Microbiology Letters.

Science management: direction of more than 20 research groups at the International Institute of Genetics and Biophysics, including the administration and supervision of almost 30 research grants from the European Commission; member of the scientific council of several research institutes; member of the National Committees for Evaluation of Research in Biology and Biotechnology; member of evaluation boards of several international organisations (European Commission, EMBO, Human Frontier Science Program, British Council, etc.); Italian delegate to survey biotechnological activities in developing countries; member of the EMBO Council and of the Board of Trustees of the Human Frontier Science Program.

Assistant Director-General for Natural Sciences at UNESCO, May 1996 to March 2000.

Organiser and Secretary General of the UNESCO-ICSU World Conference on Science (Hungary 1999). Organiser of the World Solar Summit (Zimbabwe, 1996), the Pan African Conference on Coastal Management (Mozambique, 1998) and others

### Selected publications

Grippe, P., **Iaccarino, M.**, Parisi, E., Scarano, E. "The methylation of DNA in developing sea urchin embryos". *Journal of Molecular Biology* **36**: 195-208 (1968).

**Iaccarino, M.**, Berg, P. "The requirement of sulphydril groups for the catalytic and tRNA recognition functions of isoleucyl tRNA-synthetase". *Journal of Molecular Biology* **42**: 151-169 (1969).

Lo Schiavo, F., Favre, R., Kasai, T., Cascino, A., Guardiola, J., Caro, L., **Iaccarino, M.** "The  $\phi 80\lambda dilv$  phage and its use to detect mRNA related to isoleucine-valine metabolism". *Journal of Molecular Biology* **99**: 353-368 (1975).

**Iaccarino, M.**, Guardiola, J., De Felice, M. "On the permeability of biological membranes". *Journal of Membrane Science* **3**: 287-302 (1978).

**Iaccarino, M.**, Guardiola, J., De Felice, M., Favre, R. "Regulation of isoleucine and valine biosynthesis". *Current Topics in Cellular Regulation* **14**: 29-73 (1978).

De Felice, M., Levinthal, M., **Iaccarino, M.**, Guardiola, J. "The growth inhibition of *Escherichia coli* K-12 by L-valine". *Microbiological Reviews* **43**: 42-58 (1979).

- Dixon, R., Eady, R., Espin, G., Hill, S., **Iaccarino, M.**, Kahn, D., Merrick, M. "Analysis of the regulation of the *Klebsiella pneumoniae* nitrogen fixation (*nif*) gene cluster with genetic fusions". *Nature* **286**: 128-132 (1980).
- Chiurazzi, M., **Iaccarino, M.** "Transcriptional analysis of the *glnB-glnA* region of *Rhizobium leguminosarum* biovar *viciae*". *Molecular Microbiology* **4**: 1727-1735 (1990).
- Amar, M., Patriarca, E.J., Manco, G., Bernard, P., Riccio, A., Lamberti, A., Defez R., **Iaccarino, M.** "Regulation of nitrogen metabolism is altered in a *glnB* mutant strain of *Rhizobium leguminosarum*". *Molecular Microbiology* **11**: 685-693 (1994).
- Kennedy, C., Doetsch, N., Meletzus, D., Patriarca, E.J., Amar, M., **Iaccarino, M.** "Ammonium sensing in nitrogen fixing bacteria: functions of the *glnB* and *glnD* gene products". *Plant and Soil* **161**: 43-57(1994).
- Taté, R., Patriarca, E.J., Riccio, A., Defez, R., **Iaccarino, M.** "Development of *Phaseolus vulgaris* root nodules". *Molecular Plant-Microbe Interactions* **7**: 582-589 (1994).
- Patriarca, E.J., Taté, R., Fedorova, E., Riccio, A., Defez, R., **Iaccarino, M.** "Down-regulation of the *Rhizobium ntr* system in the determinate nodule of *Phaseolus vulgaris* identifies a specific developmental zone". *Molecular Plant-Microbe Interactions* **9**: 243-251 (1996).
- Taté, R., Cermola, M., Riccio, A., **Iaccarino, M.**, Merrick, M., Favre, R., Patriarca, E.J. "Ectopic expression of the *Rhizobium etli amtB* gene affects the symbiosome differentiation process and nodule development". *Molecular Plant-Microbe Interactions* **12**: 515-525 (1999).
- Spinosa, M., Riccio, A. Mandrich, L., Manco, G., Lamberti, A., **Iaccarino, M.**, Merrick, M., Patriarca, E.J. "Inhibition of glutamine synthetase II expression by the product of the *gstI* gene". *Molecular Microbiology* **37**: 443-452 (2000).
- Iaccarino, M.** "About the Precautionary Principle". *EMBO Reports* **1**: 454-456 (2000).
- Iaccarino, M.** "A Vision for European Science". *EMBO Reports*, **2**: 259-262 (2001).
- Patriarca, E.J., Tatè, R., **Iaccarino, M.** "Key role of  $\text{NH}_4^+$  metabolism in Rhizobium-plant symbiosis". *Microbiology and Molecular Biology Reviews* **66**: 203-222 (2002).
- Iaccarino, M.** "Science and Culture". *EMBO Reports*, **4**: 220-223 (2003).
- Iaccarino, M.** "Mastering science in the South". *EMBO Reports*, **5**, 437-441 (2004).
- Patriarca, E. J., Tatè, R., Ferraioli, S., **Iaccarino, M.** "Organogenesis of the Legume Root Nodules". *International Review of Cytology*, **234**: 201-262 (2004).

## Activities at UNESCO

- Management and supervision of activities of the Science Sector of UNESCO (260 Staff plus 50 guests; 30 ML US\$ per year of regular budget plus 24 ML US\$ per year of extrabudgetary resources);
- Management of the Intergovernmental Scientific Programmes (Man and Biosphere; Intergovernmental Hydrological Programme; International Geological Correlation Programme; Intergovernmental Oceanographic Commission).

Organiser of Several Intergovernmental Conferences:

- World Solar Summit, Harare, Zimbabwe, October 1996;
- PanAfrican Conference on Coastal Management, Maputo, Mozambique (July 1998);
- World Conference on Science, Budapest, Hungary (June-July 1999): Secretary-General of the Conference;
- Countries visited for talks at the Ministerial (in some cases Head of States) level: Argentina, Austria, Barbados, Belgium, Bolivia, Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, Egypt, Greece, Hungary, Israel, Italy, Jamaica, Japan, Jordan, Kenya, Libya, Morocco, Mozambique, Palestine, Poland, Russia, Senegal, South Africa, Spain, Sweden, Switzerland, The Netherlands, Trinidad and Tobago, United Arab Emirates, United Kingdom, United States of America, Uruguay, Zimbabwe.

Briefing of Parliamentary or Intergovernmental Bodies on UNESCO Activities:

- ECOSOC (Economic and Social Council of the United Nations);
- Commission on Science and Technology for Development of ECOSOC;
- Committee for Research, Technological Development and Energy of the European Parliament;
- Island Intergroup of the European Parliament;
- Committee on Culture, Science and Education of the Council of Europe.