Abridged academic biography of Professor Paolo Vanni: Emeritus of Biochemistry at the University of Florence School of Medicine

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Paolo Vanni was a disciple of Professors Vincenzo Baccari, Andrea Guerritore and Gianpietro Ramponi. While the latter supported Vanni's appointment to Emeritus status in 2012, the first two are his scholarly mentors and *domines*; especially Prof. Andrea Guerritore, who kicked off and supervised the Florentine professor's career as a biochemist¹.

Vanni has been one of the founders of Compared Biochemistry and Vegetal Biochemistry in Italy (2, 3). Prof. Baccari directed him toward the study of enzymatic kinetics, which has been one of Vanni's fortes (4, 5). In 1971, Vanni became Lecturer of Biological Chemistry and in 1980 he won the open competition to become Full University Professor of Biochemistry. Yet, he only taught this subject for one academic year at the Faculty of Natural Sciences at the University of Sassari. The year before, he taught Organic Chemistry of the Organic Substances at the University of Florence School of Pharmacy. His beloved subject was and is Medical Chemistry, which he taught to all freshmen of the University of Florence School of Medicine from January 1964 through November 2010.

Vanni was extremely popular among his students², because he loved to spend a lot of time with them and not only in the classroom! In fact, Vanni organized and led many student ski trips on the Marmolada, Falzarego, Four Passes, Civetta, etc. During those skiing weeks, Vanni also organized make-up classes for those

who failed his exam. His former students went skiing with him and his family until 2017, including some of his devoted disciples such as Francesco Ranaldi.

Speaking of which, one cannot avoid mentioning that Vanni had three main disciples: Maria Teresa Vincenzini, Professor of Biochemistry at the University of Florence, and the Associate Professors Eugenio Giachetti and Francesco Ranaldi, who replaced him in the teaching of chemistry at the University of Florence School of Medicine. In addition, he also worked a lot with the latter on vegetal enzymology; particularly on the effects of enzymatic catalysis in hypo-gravity. Two of his experiments were approved by both the European Space Agency (ESA) and the Agenzia Spaziale Italiana (ASI) to study the effects of hypo-gravity on the catalysis of isocitrate lyase, an important enzyme of the glyoxylate cycle. While on the isolated molecule the hypo-gravity does not produce particular effects, on complex structures or cellular structures it has an important activation of the enzymatic catalysis and the cellular growth (6-9).

In 1974, and again in 1977-1978, he was visiting professor within Prof. Giorgio Semenza's chair at ETHZ's Laboratorium für biochemie, where he demonstrated the presence of a carrier for Vitamin C in the guinea pig's intestine (10). In addition, in 1988 he was visiting professor at Washington State University upon the invitation of Prof. John MacFadden (11),

¹Vanni wrote a heartfelt obituary of Prof. Guerritore on December 12, 2017 (1).

²More than 300 of his former students attended his farewell lecture in December 2010.



Figure 1. Prof. Vanni and the rescued tip of the maser 7 rocket at the Kiruna Space Base Sweden (Artic Pole Circle).

during which period he published an important article on the Vanni published over 200 works on biochemistry as either author or co-author.

Together with Drs. John and Evelyn Billings, he led a research team on the structure and function of the human cervical mucus for fertility experiments together (12). He wrote many manuals of general chemistry, organic chemistry, biochemistry exercises, human biochemistry, dental materials, etc.

When history of medicine was reintroduced in the curriculum of the Italian Schools of Medicine, Vanni was charged with teaching it. Since 1995, moreover, he has been publishing hundreds of works on the history of medicine and the Red Cross movement between peer-reviewed articles, conference proceedings and invited lectures.

In particular, his works on the Red Cross history are of a certain relevance. He is one of the first Italian

scholars to write about Henry Dunant and popularize his ideas among Italian students. Dunant is indeed the true and most important founder of the ICRC. Vanni published the first Italian edition of Dunant's memoirs edited by Prof. Bernard Gagnebin of the University of Geneva (13).

In 2001 Vanni was a visiting professor at Prof. Edward Shorter, Toronto University Institute of Medicine History to conduct research on Norman Bethune, a Canadian surgeon who worked with H.Dunant after the Battle of Solferino 1859 (14).

In 2002, the President of Italy, Dr. Carlo A. Ciampi, met with him on the occasion of the centennial anniversary of the Nobel Peace Prize awarded to Dunant in 1901. From 2002 onward, Vanni has published numerous edited volumes, monographs and articles concerning military medicine and surgeon gen-



Figure 2. Prof. Vanni is received by the President of the ICRC in Geneva, Dr Peter Maurer (center). On the right the Dr François Bugnion member of the ICRC.

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eral corps. One of the most famous articles is that on the behavior of the Italian MD officers at the Battle of Adwa in 1896 (15). On behalf of the Italian Red Cross, in 2004 he established the national courses of History of the Red Cross Movement and Medicine: the 14th course is under preparation. He organized 18 symposia on the history of medicine and Red Cross in Italy and abroad. He was appointed honorary member of the Italian Society for Military History and of Rome Accademia dell'Arte Sanitaria.

He published all of Henry Dunant's handwritten memoirs, which were bought by the Tuscan Regional Committee of the Italian Red Cross chaired by Dr. Francesco Caponi, 11 volumes, about 6'000 pages (16). Together with his colleague Prof. Costantino Cipolla of the University of Bologna he is the principal editor of the series *Sociologia della Croce Rossa* for the publishing house Franco Angeli. The editorial board of

this series is composed of the world's most important scholars of the sociology and history of the Italian Red Cross.

For the above-mentioned series, Vanni and his colleagues published the only complete history of the 150 years of the Italian Red Cross. Up to now, 8 volumes were published covering the period between its foundation and the outbreak of the Great War (17). It is a massive and important collection of volumes, which Vanni and Cipolla will leave to their disciples to complete in the next decade.

In his hometown, Florence, he has been editing the series *I quaderni di Henry Dunant* for the publishing house Tassinari. In the Tassinari series, apart from the 11 volumes of the memoirs of Dunant, there were also three volumes on the history of the ICRC between Solferino and San Martino (1859) and the siege of Diem Bien Phu,1955 (18-20).



Figure 3. Prof. Vanni is received by the President of the International Federation of National Red Cross Societies and President of the Italian Red Cross, Dr Francesco Rocca, in the center. On the right the Dr Francesco Caponi, President of the Regional Committee CRI of Tuscany (Florence). They show the X tome of the Henry Dunant Manuscripts.

Vanni was received by two presidents of the ICRC, Jacob Kellenberger and Peter Maurer, who congratulated him for his publications. Both presidents described the works published by Vanni and his colleagues (e.g., *Un Souvenir de Solferino* with Cipolla and the only existing translation of the seventh edition with Maria Grazia Baccolo) as unique and extraordinary. In particular, Peter Maurer appreciated very much the role of Italy in this scholarly activity (21-23).

In 2006, Vanni was appointed National Delegate for the History of the Italian Red Cross by the then president, Dr. Massimo Barra, and confirmed in such role by the current president, Mr. Francesco Rocca. Rocca appointed him also National Referee for the History of the Italian Red Cross. In February 2018, Rocca appointed him chairman of the National Academic Committee for the History of the Italian Red Cross in which seat also Professors Giuseppe Armocida (University of Varese), Valentina Gazzaniga (University of Rome "La Sapienza"), Carlo Focarelli (University of Rome 3), Giuseppe Parlato (UNINT University Rome), Stefania Bartoloni (University of Rome 3) and Duccio Vanni (University of Florence).

As per his full CV, Vanni taught and trained numerous experts of the history of the Red Cross and of medicine (CISCRi or *Cultori Italiani di Storia della Croce Rossa internazionale*). The CISCRi title and certificate is awarded to the attendees of the national courses organized by Vanni. Scores of CISCRi are now contributing to the volumes edited and wrote by Vanni.

Professor Vanni has been appointed Accademico della Colombaria in 2012 and 2015, and in 2015 of the Accademia dei Georgofili, which are two of the most prestigious Florentine academies.

He was awarded the Italian Red Cross Silver Medal in 2009.

Apart from the innumerable invited lectures, conferences, symposia, round-tables and book launches, one can only congratulate him for his 421 publications. Hats off!

References

Tortora P, Vanni P. Un ricordo di Andrea Guerritore. Quaderni H.Dunant n°7, Fondazione G.Ronchi n° CIV & Ufficio Storico CRI Reg. Toscana Ed. Firenze; 2009; 1-43.

- Cioni M, Pinzauti G, Vanni P. Comparative biochemistry of the glyoxylate cycle. Comp Biochem Physiol 1981; 70B:1-26.
- 3. Giachetti E, Pinzauti G, Bonaccorsi R, Vincenzini MT, Vanni P. Isocitrate Lyase from Higher Plants. Phytochemistry 1987; 26(9):2439-46.
- Firenzuoli AM, Vanni P, Mastronuzzi E, ZanobiniA, Baccari V. Enzymes of Glyoxylate Cycle in Conifers. Plant Physiol 1968; 43:1125-8.
- Ranaldi F, Vanni P, Giachetti E. Multisite inhibition of Pinus pinea isocitrate lyase by phosphate. Plant Physiol 2000; 124:1131-8
- Giachetti E, Ranaldi F, Vanni P. Enzyme Catalysis in microgravity: an intricate problem to be salved. Febs Letters 2001; 25147:1-2.
- Ranaldi F, Vanni P, Giachetti E. Enzime catalysis in microgravità: steady-state kinetic analysis of the ICL reaction. Biophys Chem 2003; 103:169-77.
- 8. Boncinelli P, Vanni P. Gravitational effects on biological systems. J Grav Physiol 1998; 5(2):51-4.
- Ranaldi F, Vanni P, Giachetti E. What students must know about the determination of enzymes kinetics parameters. Biocheml Ed 1999; 27:87-91.
- Siliprandi L, Vanni P, Kessler M, Semenza G. (1979) Natdependent, electroneutral 1 ascorbate transport across brush border membrane vesicles from guinea pig small intestine. Biochem Biophys Acta 1979; 552:129-42.
- Ko YH, Vanni P, McFadden BA. The interaction of 3-phosphoglycerate and other substrate analogs with the glyoxylate- and succinate-binding sites of isocitrate lyase. Arch Biochem Biophys 1989; 274(1):155-60.
- Treves C, Vincenzini MT, Vanni P, Bardazzi F, Cattaneo A, Ogier EP. Changes in Enzymes level in human cervical mucus during the menstrual cycle. Int J Fertil 1986; 31:59-66.
- 13. Dunant H. Mémoires Text established and presented by Bernard Gagnebin, Geneva, Henry Dunant Institute, and Lausanna Edition L'Age d'Homme, 1071. Italian version by Vanni P, Baccolo MG, Ottaviani R, 2°ed. Sorbona Idelson Gnocchi Ed. Napoli; 2005.
- 14. Vanni P, Ottaviani R, Guerin E, Vanni D. H.Dunant and N.Bethune a canadian surgeon who worked with H.Dunant at the Battle of Solferino. Vesalius 2002; 8(2):30-5.
- Licciardello S, Pomini D, Vanni D, Vanni P. Adua storia di una Sanità Militare dimenticata. Firenze: Scuola di Sanità Militare di Firenze; 1997:1-132.
- Dunant H. Manuscrits. In: Vanni P (Ed) Public Geneva Library (CD F1712-1722). Tome 1–11, Quaderni H. Dunant N° 6. G. Ronchi Fondation and Tassinari Editors. Florence: Historical Office Italian Red Cross Tuscan Regional Committee; 2010-2017.
- 17. Cipolla C, Vanni P. Storia della Croce Rossa Italiana dalla nascita al 1914. Milano: Franco Angeli Ed; 2013-2016.
- Boissier P. Da Solferino a Tsoushima Storia del Comitato Internazionale della Croce Rossa. Ottaviani R and Vanni P (Eds). Firenze: Ed. Tassinari; 2014.
- 19. Durand A. Da Sarajevo a Hiroshima: Storia del Comitato

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- Internazionale della Croce Rossa. Distante E, Ottaviani R, Vanni P (Eds) Quaderni H. Dunant n° 17. Firenze: Ed. Tassinari; 2016.
- Rey-Schyrr C. Da Yalta a Dien Bien Phy. Vanni P (Ed) In Press.
- 21. Dunant H. Un Souvenir de Solferino. Reproduction of the first Italian edition, 1863; Italian traslation by L. Zanetti. Caponi F, Ceci G, Ottaviani R and Vanni P (Eds) Quaderni H. Dunant. Firenze: Fondazione G. Ronchi e Uff. Storico CRI Com. Reg. Toscana Ed; 2008.
- 22. Dunant H. Un Souvenir de Solferino. Cipolla C and Vanni P (Eds). Milano: Franco Angeli Ed; 2009.
- 23. Dunant H. Un Souvenir de Solferino. Italian traslation by Baccolo MG. Vanni P (Ed) Viterbo: Alter Ego Ed; 2013.

Other publications to remember are:

- Ottaviani R, Vanni P, Baccolo MG, Guerin E, Vanni D. The first Nobel Peace Prize: H.Dunant, founder of Red Cross and his Memoires. Vesalius- Official Jour Intern Soc Medi Hist 2003; 9(1):20-7.
- Vanni D, Ottaviani R, Vanni P. Norman Bethune (1822-92) canadian surgeon, as remembered by H.Dunant (1828-1910),

- founder of the Red Cross Organization. J Med Biography 2008; 16:195-6.
- Ottaviani R, Vanni D, Baccolo MG, Vanni P. Louis Appia (1818-98): military surgeon and member of the International Committee of Red Cross. J Med Biography 2011; 19:117-24.
- Vanni D, Baccolo MG, Vanni P. Trois médecins aux origines de la Croix Rouge Italienne. Louis Appia, Ferdinando Palasciano e Cesare Castiglioni. Medicina & Storia XIV, 6. Pisa: Edizioni ETS; 2004; 68-81.
- Vanni D, Palasciano G, Vanni P, Vanni S, Guerin E. Medical doctors and the foundation of the International Red Cross. Inter Emerg Med 2018; 13:301-5.
- Vanni D, Vanni P, Mannelli I, Vanni S. Elena, Duchess of Aosta, Inspector General of The Red Cross Volunteer Nurses In the Great War - World War 1. Acta Medica Mediterranea 2018; 34:713-8.

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