

GERMAGNOLI LUCA

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Date of birth May 01, 1961

1988 graduate in Medicine - University Milan

1993 postgraduate in Hematology - University Pavia

1997 postgraduate in Clinical Chemistry - University Milan

2002-2003, Degree as Internal and External Auditor- ISO 9001 standard

2004-2005, Master in Evidence Based Medicine and Methodology of Health Research – University Modena and Reggio Emilia

2007-2008 Degree as Manager for Protection and Prevention of risks in health workplace – AICQ – Milan

2021, Degree as Technical Surveyor– ISO15189 standard by Accredia (Ente Italiano di Accreditamento)

I started my professional activity as vascular surgeon in San Giuseppe Hospital – Milan where I graduated with an experimental thesis about Lumbar Sympathectomy surgery for therapy of occlusive arterial disease (1984-1988, San Giuseppe Hospital, Milan).

Work experiences:

1988-2008 San Raffaele Hospital - Milan laboratory medicine department with different tasks and responsibilities:

- Blood bank and Immunohematology service: clinical activity in general and neoplastic hematology and in hematopoietic bone marrow transplantation activities. Involved in the diagnostic pathway in acute leukemia and myelodysplastic diseases mainly by cytochemistry and immunocytochemistry methods.
- Infectious Diseases department (1991-2001) – DSNP/Centro San Luigi laboratory: chief of Clinical Chemistry and Hematology laboratory. During this period I worked mainly as hematology consultant for MDs involved in the management of patients affected by HIV, other infectious diseases, neurologic and psychiatric diseases; I gained competence mainly in HIV correlated hematologic clinical entities and in hematologic (blood) parasitology (mainly in diagnosis of Malaria and Leishmania species); ownership of general hematology clinic focused mainly on management of chronic lympho/myeloproliferative diseases and on follow-up of acute leukemia patients.
- 2001-2004, chief of the main Stat Laboratory - San Raffaele Hospital; at the same time I worked at the consolidation project of the routine/stat analyzers in the chemistry-immunochemistry area.
- 2004-2008, chief of the workcell/big automation department. The project realized and brought to routine an automation system made by 13 analyzers (3 Advia 2400, 1 Advia Centaur, 2 Architect i2000, 3 AIA and 4 Liaison) with automation of the pre-analytical (samples check-in, centrifugation and decapping of tubes), analytical and post-analytical (tube recapping, storage and automatic wasting of tubes) processes; the automation system was from Inpeco supplier and worked for the serum area only and covered the main clinical specialties (clinical chemistry, neoplastic diseases, endocrinology, infectious diseases, bone disease). During this period the system had a total test volume equal to about 4.5 Mio/year.

The implementation of this TLA system has made it possible to develop an environment of intense clinical exchange with hospital professionals, the production of various projects and numerous relationships with European and International colleagues.

I worked about laboratory automation systems since 1997 when I evaluated a prototype system from Ortho Clinical Diagnostic which included dry and wet chemistry instruments.

- 2008-2016 I worked as a consultant for Inpeco Spa as Medical Affairs with the task of collaborating in drafting and approving the clinical risk assessments plans for new hardware and devices and in evaluating the clinical and personnel risks in case of customer compliance reports.

During working period in San Raffaele Hospital my main topics were about the design and implementation of automation systems for the clinical laboratory, the optimization of laboratory workflow, the realization and remote control of networks of POCT analyzers and Evidence Based Medicine projects in clinical medicine. The latest were carried out mainly in collaboration with Galeazzi Orthopedic Hospital in Milan.

I was Clinical Chemistry and Hematology professor at Vita e Salute University, San Raffaele Hospital.

September 2008 - March 2016 I was Medical director of Unilabs laboratory - Lugano (CH). The laboratory had only service activity and it received biological samples from rehabilitation clinics, nursing homes, private clinics and from about 250 private MDs located throughout Ticino area. The laboratory included hematology, immunohematology, clinical chemistry and immunochemistry departments and specialized areas for Genetic/Cytogenetic and Microbiological activities. Unilabs Ticino is part of a large network made up of laboratories distributed throughout Europe and it is one of the 3 national hub laboratories.

I got FAMH degrees in Hematology and Clinical Chemistry in 2011.

I worked as Medical director for two decentralized laboratories located in the main private clinics in Ticino area, Clinica Luganese Moncucco and S. Anna orthopedic clinic.

The laboratory was ISO 17025 and ISO 15189 certified.

I was mainly involved in medical consultancy to MDs about hematology and laboratory medicine topics, in scientific training for MDs and in the implementation of business plans and promotional activities for new analytical tests and diagnostic protocols and panels.

I was involved in medical activities with the main Ticino hospitals (Clinica Luganese Moncucco, S. Anna/ARS Medica orthopedic clinics) working mainly about hematology, autoimmune diagnostics, hepatology patients and topics.

I worked also as manager of the workplace prevention and protection service.

Professor at TAB School in Locarno in Hematology and main topics in Laboratory Medicine.

April 2016 - April 2019 I worked in Synlab Italy as medical director of the main Italian hub laboratory in Castenedolo (Brescia) and Chief Medical Officer (CMO) for Italian area.

The hub laboratory is the bigger private laboratory in Italy, it has an analytical production of around 14 Mio tests for year with all clinical and analytical specialties involved (hematology, immunohematology, clinical chemistry, immunochemistry departments). Castenedolo hub includes a big volume Genetic/Cytogenetic area, a big volume Pathology department for both histology and cytology samples and a highly specialized toxicology area for both clinical and occupational workplace monitoring.

As CMO I had the control of 8 national laboratories distributed in Lombardia, Liguria, Toscana, Veneto, Emilia Romagna, Lazio and Campania and structured according to the H&S model. As CMO the main topics were:

- Distribution of the different analytical activities in the individual spoke laboratories according to the local clinical/customer and legal needs and on the basis of financial considerations,
- National harmonization of analytical methods, test expression and report modalities, pre-post and analytical procedures,
- Internal Quality Control and External Quality Control concepts harmonization,

- Sizing of technicians and graduate staff operating in the Hub and Spoke. In 2019 the number of operating personnel in the different Italian laboratories was approximately 350 units, 250 of these were concentrated in the Hub,
- Internalization in Castenedolo Hub of the tests sended out to the Synlab European hubs in Barcellona and Lienfelden,
- Involved in the restructuring projects for the new laboratories in Toscana, Campania, Lazio and Castenedolo itself,
- Involved in the design and organizations of the Italian Blood Collection Points,
- Involved in the identification of business models for customers and for new acquisitions of competitors

In Synlab Italy (2017-2019) I was coordinator for the European scientific projects within the EIT Health network, a private European network to financing projects concerning scientific innovation and people training about different topics (science, finance, humanistic topics and others). These activities made it possible to build contacts with many European exponents of different universities, hospitals and industrial fields.

During these two years Synlab Italia obtained the participation to innovation projects and in particular with:

- EPFL (Ecole Polytechnique Federale de Lausanne) and SUNBIOSCIENCE about genetics tests in organoids for Cystic Fibrosis diagnosis
- Karolinska Institutet of Stockholm about a new diagnostic IT platform and shared prostate biopsies images
- Italian Institute of Technology (IIT) about a POCT instruments for miRNA in the prediction of Cytomegalovirus infection reactivation in bone marrow and liver transplant patients
- Galeazzi Institute, Milan about a new way to make diagnosis of orthopedic implants bacterial infections

I continued to follow these activities during my next period in Synlab Suisse.

May 2019 – October 2020: Synlab Suisse as Chief of Operation for I-CH and Medical director of the laboratory. I had also the direction of two hospital laboratories in S. Anna clinic and in S. Chiara Clinic (Locarno).

The laboratory includes all the clinical and analytical sections and a big genetics laboratory working mainly in hematology neoplasia tasks and in genetic assessment for couples referred to assisted procreation procedures.

Jan. 2021 – Oct. 2022: Humanitas Clinical Institute (ICH), Rozzano (Italy) as Medical director of the laboratory.

ICH laboratory covers all the typical hospital activities and includes large Genetics and Cytogenetics sections working mainly in oncology (hematology and solid cancer), and in assisted procreation procedures, but also in specific fields of cardiology and neurology (hereditary cardiomyopathies, Parkinson's disease and dystonias).

ICH laboratory currently employs about 42 technicians and 24 graduates in biology and 1 medical doctor and it has an analytical production of around 2.5 Mio tests for year.

I was Adjunct Professor at Humanitas University for the topic “Innovative Methodologies for care and diagnosis”, Bachelor of Science in Nursing and Midwifery.

I am currently Hematology professor for “Permanent Training School in Laboratory Medicine (SPML)”-SIBioC

Selected publications:

Ricci D, Ponzoni M, Zoldan MC, Germagnoli L, Faravarelli A. Bone marrow biopsy in 50 AIDS patients: a diagnostic approach.

Pathologica. 1995 Dec;87(6):640-5. PMID: 8927423.

Cerioti F, Del BL, Bonini P, Germagnoli L, Ferrero CA, Pezzo M, Marocchi A.

A two-center evaluation of the blood gas immediate response mobile analyze (IRMA).

Clin Chem Lab Med. 2002 Feb; 40(2):182-91. doi: 10.1515/CCLM.2002.031.PMID: 11939493.

Bossolasco S, Gaiera G, Olchini D, Gulletta M, Martello L, Bestetti A, Bossi L, Germagnoli L, Lazzarin A, Uberti-Foppa C, Cinque P. Real-time PCR assay for clinical management of human immunodeficiency virus-infected patients with visceral leishmaniasis.

J Clin Microbiol. 2003 Nov; 41(11):5080-4. doi:10.1128/jcm.41.11.5080-5084.2003.

Fermo I, Germagnoli L, Soldarini A, Dorigatti F, Paroni R. Capillary zone electrophoresis for determination of carbohydrate-deficient transferrin in human serum.

Electrophoresis 2004 Feb; 25(3):469-75. doi: 10.1002/elps.200305694. PMID: 14760639.

Poli D, Gemma M, Cozzi S, Lugani D, Germagnoli L, Beretta L. Muscle enzyme elevation after elective neurosurgery.

Eur J Anaesthesiol. 2007 Jun; 24(6):551-5. doi: 10.1017/S0265021506002389. Epub 2007 Jan 23. PMID: 17241501.

Verga A, Donghi R, Germagnoli L, Mladen T, Bordini L, Patrini A, Todaro A Ricci M.

La determinazione della transferrina decarbossilata (CDT) come indicatore di consumo alcolico: problematiche analitiche ed interpretative. Case report.

G Ital Med Lav Ergon. 2007 Jul-Sep; 29(3 Suppl):261-2. Italian. PMID: 18409675.

Moja L, Piatti A, Pecoraro V, Ricci C, Virgili G, Salanti G, Germagnoli L, Liberati A, Banfi G. Timing matters in hip fracture surgery: patients operated within 48 hours have better outcomes. A meta-analysis and meta-regression of over 190,000 patients.

PLoS One. 2012; 7(10): e46175. doi: 10.1371/journal.pone.0046175. Epub 2012 Oct 3. PMID: 23056256; PMCID: PMC3463569.

Pecoraro V, Germagnoli L, Banfi G. Point-of-care testing: where is the evidence? A systematic survey.

Clin Chem Lab Med. 2014 Mar; 52(3):313-24. doi: 10.1515/cclm-2013-0386. PMID: 24038608.

Pecoraro V, Roli L, Germagnoli L, Banfi G. The prognostic role of bone turnover markers in multiple myeloma patients: The impact of their assay. A systematic review and meta-analysis.

Crit Rev Oncol Hematol. 2015 Oct; 96(1):54-66. doi: 10.1016/j.critrevonc.2015.05.001. Epub 2015 May 21. PMID: 26044302

Pipitone S, Germagnoli L, Da Rin G, Di Fabio A, Fanelli A, Fiorini F, Francione S, Marini A, Papa A, Benegiamo A, Lari T, Siviero F, Lorubbio M, Borin M, Seghezzi M, Ciardelli ML, Dima F, Gioia M, Buoro S. Comparing the performance of three panels rules of blood smear review criteria on an Italian multicenter evaluation.

Int J Lab Hematol. 2017 Dec; 39(6):645-652. doi: 10.1111/ijlh.12720.

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Da Rin G, Vidali M, Balboni F, Benegiamo A, Borin M, Ciardelli ML, Dima F, Di Fabio A, Fanelli A, Fiorini F, Francione S, Germagnoli L, Gioia M, Lari T, Lorubbio M, Marini A, Papa A, Seghezzi M, Solarino L, Pipitone S, Tilocca E, Buoro S. Performance evaluation of the automated nucleated red blood cell count of five commercial hematological analyzers.

Int J Lab Hematol. 2017 Dec;39(6):663-670. doi: 10.1111/ijlh.12722. Epub 2017 Oct 8. PMID: 28990291.

Pecoraro V, Banfi G, Germagnoli L, Trenti T. A systematic evaluation of immunoassay point-of-care testing to define impact on patients' outcomes.

Ann Clin Biochem. 2017 Jul; 54(4):420-431. doi: 10.1177/0004563217694377. Epub 2017 May 15. PMID: 28135840.

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J Clin Pathol. 2020 Sep 14: jclinpath-2020-206857. doi:10.1136/jclinpath-2020-206857.

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Personeni N, Giordano L, Michelini A, D'Alessio A, Cammarota A, Stioui S, Germagnoli L, Santoro A, Rimassa L, Mineri R. Implementing Pre-Therapeutic UGT1A1 Genotyping in Clinical Practice: a Real-Life Study.

J Personalized Medicine. Epub ahead of print. Doi: 10.3390/jpm12020204

Azzolini E, Pozzi C, Germagnoli L, Selmi C, Carlo-Stella C, Mantovani A, Rescigno M. mRNA COVID-19 vaccine booster fosters B- and T-cell responses in immunocompromised patients.

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Member of Multidisciplinary panel of Experts for clinical aspects and for EBM methodology, for the project "Marcatori circolanti in oncologia. Guida all'uso clinico appropriato", Quaderni di Monitor, Agenas (Agenzia Nazionale per i Servizi Sanitari Regionali), 2016

This paper is later published in 3 parts on "International Journal of Biological Markers":

Int J Biol Markers 2016; 31(4): e332-e367; DOI: 10.5301/ijbm.5000251

Int J Biol Markers 2017; 32(1): e1:e52; DOI: 10.5301/ijbm.5000259

Int J Biol Markers 2017; 32(2): e147-e181; DOI: 10.5301/ijbm.5000272

Speaker in many training courses and meetings.

Speaker at 22° National congress of Italian Society of Laboratory Medicine (SIBioC-SIMeL), 2008. Topic discussed: "POCT e laboratorio analisi".

Speaker at Euromedlab 2019-Barcelona, May 19-23 2020 at workshop "From Niche to full Automation – State of the Art Management for Workflow Optimization". Topic discussed: "Laboratory Workflow Optimization in the Field of Fecal Calprotectin Testing".

Milan, Dec. 2022

Luca Germagnoli MD



Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 e del GDPR (Regolamento UE 2016/679)