CURRICULUM VITAE

Renzo Vanna, Ph.D

Consiglio Nazionale delle Ricerche (CNR)
(Italian National Research Council)
Istituto di Fotonica e Nanotecnologie (IFN)
(Institute for Photonics and Nanotechnologies)

Department of Physics - Politecnico di Milano
Piazza Leonardo da Vinci 32
20133 Milano,
Italy

Blibliometric profiles:
Scopus ID: 35339885700
ResearcherID (Thomson Reuters): K-4670-2016
ORCiD: 0000-0001-6218-8393a

Date of birth	
Age	
Place of birth	
Nationality	Italian
Permanent home address	

Employment

Current position - From January 2023 (ongoing – 1 year)
Primo ricercatore – Senior researcher *(full time permanent position)*
Consiglio Nazionale delle Ricerche (CNR) - Istituto di Fotonica e Nanotecnologie (IFN)

December 2019 – December 2022 (3 years)
Ricercatore - researcher *(full time permanent position)*
Consiglio Nazionale delle Ricerche (CNR) - Istituto di Fotonica e Nanotecnologie (IFN)

November 2017 – November 2019 (2 years)
Senior Researcher *(fixed-term contract, Co.Co.Co. 3 years)*
IRCCS ICS Maugeri SpA Società Benefit (Pavia, Italy)
Laboratory of Nanomedicine and Molecular imaging

January 2016 – November 2017 (2 years)
Principal investigator *(fixed-term contract, 2 years – coordinator of EU ERA-NET project)*
IRCCS Fondazione Don Carlo Gnocchi ONLUS (Milan, Italy)
LABION, Laboratory of Nanomedicine and Clinical Biophotonics

October 2012 – December 2013 (1 year, discontinued)
Visiting Post-doctoral researcher *(paid by CARIPLO trough a project funded by the International Recruitment Call 2011)*
University of Twente (The Netherlands)
Medical Cell Bio Physics (MCBP), MIRA Institute for Biomedical Technology and Technical Medicine.

January 2012 – December 2015 (4 years)
Post-doctoral researcher *(fixed-term contract, 2+2 years)*
IRCCS Fondazione Don Carlo Gnocchi ONLUS (Milan, Italy)
LABION, Laboratory of Nanomedicine and Clinical Biophotonics.

Education

January 2009 – January 2012 (three years)
PhD in Molecular Medicine - Genomics, Proteomics and related Technologies
Date: 8 February 2012
University of Milan, Italy
Funded by the National Council of Research (CNR)
Institute of Biomedical Technologies, Italian National Research Council (CNR), Milan

October 2006 – October 2008 (two years)
Master degree in Industrial Biotechnology
Second-level Italian degree - (Laurea di secondo livello)
Date: 24 October 2008
Grade 110/110 cum laude
University of Pavia, Italy
Dipartimento di Chimica Farmaceutica
Biocatalysis Laboratories and Italian Biocatalysis Center

October 2003 – October 2006 (three years)
Bachelor degree in Biotechnology (Laurea triennale in Biotecnologie)
First-level Italian degree - (Laurea di primo livello)
Date: 17 October 2006
Grade 110/110 cum laude
University of Pavia, Italy
Dipartimento di Chimica generale
Inorganic Chemistry Laboratory.

Scientific Production

Papers in international scientific periodicals with referees

1. Bresci, A., Kim, J.H., Ghislanzoni, S., (...), **Vanna, R**., Polli, D.
   "Noninvasive morpho-molecular imaging reveals early therapy-induced senescence in human cancer cells"
   Science advances (**2023**) 9(37),eadg6231

2. Morasso, C., **Vanna R* (co-first),** Piccotti, F., ...Giannini, C., Corsi, F.
   "Whitlockite has a characteristic distribution in mammary microcalcifications and it is not associated with breast cancer"
   Cancer Communications, (**2023)**, 43(10), pp. 1169–1173

3. Ardini, B., Bassi, A., Candeo, A., (...), Genco, C. Trovatello, F. Liu, X. Zhu, G. Valentini, G. Cerullo, **Vanna, R**., Manzoni, C.
   "High-throughput multimodal wide-field Fourier-transform Raman microscope"
   Optica, (**2023**), 10(6), pp. 663–670

4. Bossi, A., Sekar, S. K. V., Lacerenza, M., Gandolfi, V., Šušnjar, S., Lanka, P., **Vanna, R**., Valentini, G., Pifferi, A.
   "Time domain diffuse Raman spectroscopy using single pixel detection"
   Biomedical Optics Express (**2023**) 14(11), 5749-5763.

5. Vernuccio, F., **Vanna, R**., Ceconello, C., (...), Cerullo, G., Polli, D.
   "Full-Spectrum CARS Microscopy of Cells and Tissues with Ultrashort White-Light Continuum Pulses"
   Journal of Physical Chemistry B (**2023**) 127(21), pp. 4733-4745

6. Ferrari, F., Rossi, D., Ricciardi, A., Morasso, C., Brambilla, L., Albasini S., **Vanna, R.**, (…), Corsi, F., Truffi, M.
   "Quantification and prospective evaluation of serum NfL and GFAP as blood-derived biomarkers of outcome in acute ischemic stroke patients"
   Journal of Cerebral Blood Flow and Metabolism(**2023**) 43(9), pp. 1601-1611

7. Sorrentino, S., Manetti, F., Bresci, A., (...),**Vanna, R,** Cerullo, G., Polli, D.
   "Deep ensemble learning and transfer learning methods for classification of senescent cells from nonlinear optical microscopy images"
   Frontiers in Chemistry (**2023**) 11,1213981

8. Bergamaschi, G., Musicò, A., Frigerio, R., (...), **Vanna, R.** Cretich, M., Gori, A.
   "Composite Peptide-Agarose Hydrogels for Robust and High-Sensitivity 3D Immunoassays"
   ACS Applied Materials and Interfaces (**2022**) 14(4), pp. 4811-4822

9. **Vanna, R**. **(corr.author),**, De la Cadena, A., Talone, B., (...), Polli, D., Cerullo, G.
   "Vibrational imaging for label-free cancer diagnosis and classification"
   Rivista del Nuovo Cimento (**2022**) 45(2), pp. 107-187

10. De La Cadena, A., Vernuccio, F., Ragni, A., **Vanna, R.**, Cerullo, G., Polli, D.
    Broadband stimulated Raman imaging based on multi-channel lock-in detection for spectral histopathology
    APL Photonics (**2022**) 7(7),076104

11. Chirizzi C, Morasso C, Caldarone AA, Tommasini M, Corsi F, Chaabane L, **Vanna R* (corr.author),** Bombelli FB, Metrangolo P.
    "A Bioorthogonal Probe for Multiscale Imaging by 19F-MRI and Raman Microscopy: From Whole Body to Single Cells."
    J Am Chem Soc. (**2021**) 143(31):12253-12260. doi: 10.1021/jacs.1c05250.
    (I.F. 15.419)

12. Guo S, Beleites C, Neugebauer U, […], Stone N, Untereiner V, **Vanna R**, Wieland K, Popp J, Bocklitz T.
"Comparability of Raman spectroscopic configurations: A large scale cross-laboratory study"
Analytical Chemistry (**2020**) Dec 15;92(24):15745-15756. doi: 10.1021/acs.analchem.0c02696.
(I.F. 6.785)

13. Andreata F, Bonizzi A, Sevieri M, Truffi M, Monieri M, Sitia L, Silva F, Sorrentino L, Allevi R, Zerbi P, Marchini B, Longhi E, Ottria R, Casati S, **Vanna R**, Morasso C, Bellini M, Prosperi D, Corsi F, Mazzucchelli S.
"Co-administration of H-ferritin-doxorubicin and Trastuzumab in neoadjuvant setting improves efficacy and prevents cardiotoxicity in HER2 + murine breast cancer model."
Scientific Reports (**2020)** Jul 10;10(1):11425. doi: 10.1038/s41598-020-68205-w.
(I.F. 3.998)

14. Morasso CF, Sproviero D, Mimmi MC, Giannini M, Gagliardi S, **Vanna R**, Diamanti L, Bernuzzi S, Piccotti F, Truffi M, Pansarasa O, Corsi F, Cereda C.
"Raman spectroscopy reveals biochemical differences in plasma derived extracellular vesicles from sporadic amyotrophic lateral sclerosis patients."
Nanomedicine. (**2020**) :102249. doi: 10.1016/j.nano.2020.102249. Online ahead of print.
(I.F. 5.182)

15. Morasso C, Truffi M, **Vanna R**, Albasini S, Mazzucchelli S, Colombo F, Sorrentino L, Sampietro G, Ardizzone S, Corsi F.
"Raman analysis reveals biochemical differences in plasma of Crohn's Disease patients."
Journal of Crohn's and Colitis (**2020)** :jjaa080. doi: 10.1093/ecco-jcc/jjaa080.
(I.F. 8.658)

16. **Vanna R,** Morasso C, Marcinnò B, Piccotti F, Torti E, Altamura D, Albasini S, Agozzino M, Villani L, Sorrentino L, Bunk O, Leporati F, Giannini C, Corsi F.
"Raman Spectroscopy Reveals That Biochemical Composition of Breast Microcalcifications Correlates with Histopathologic Features."
Cancer Res. (**2020**) ;80(8):1762-1772. doi: 10.1158/0008-5472.CAN-19-3204.
(I.F. 9.727)

17. Paladino A, Woodford MR, Backe SJ, Sager RA, Kancherla P, Daneshvar MA, Chen VZ, Bourboulia D, Ahanin EF, Prodromou C, Bergamaschi G, Strada A, Cretich M, Gori A, Veronesi M, Bandiera T, **Vanna R**, Bratslavsky G, Serapian SA, Mollapour M, Colombo G.
"Chemical Perturbation of Oncogenic Protein Folding: from the Prediction of Locally Unstable Structures to the Design of Disruptors of Hsp90-Client Interactions."
Chemistry. (**2020**) . doi: 10.1002/chem.202000615. Online ahead of print.
(I.F. 4.857)

18. Fornasaro S, Alsamad F, Baia M, Batista de Carvalho LAE, Beleites C, Byrne HJ, Chiadò A, Chis M, Chisanga M, Daniel A, Dybas J, Eppe G, Falgayrac G, Faulds K, Gebavi H, Giorgis F, Goodacre R, Graham D, La Manna P, Laing S, Litti L, Lyng FM, Malek K, Malherbe C, Marques MPM, Meneghetti M, Mitri E, Mohaček-Grošev V, Morasso C, Muhamadali H, Musto P, Novara C, Pannico M, Penel G, Piot O, Rindzevicius T, Rusu EA, Schmidt MS, Sergo V, Sockalingum GD, Untereiner V, **Vanna R,** Wiercigroch E, Bonifacio A.
"Surface Enhanced Raman Spectroscopy for Quantitative Analysis: Results of a Large-Scale European Multi-Instrument Interlaboratory Study."
Analytical Chemistry. (**2020**); 92(5):4053-4064. doi: 10.1021/acs.analchem.9b05658.
(I.F. 6.785)

19. Bavaro T., Bruni M., Robescu M., Ubiali D., Marrubini G., **Vanna R.**, Morasso C., Benucci I., Speranza G.. "Immobilization of γ-glutamyl transpeptidase from equine kidney for the synthesis of kokumi compounds."
*ChemCatChem 12.1 (**2020**): 210-218 https://doi.org/10.1002/cctc.201901464*
(I.F. 4.853)

20. Sorrentino L, Agozzino M, Albasini S, Bossi D, Mazzucchelli S, **Vanna R**, Papadopoulou O, Villani L, Corsi F.
"Involved margins after lumpectomy for breast cancer: Always to be re-excised?"
Surg Oncol. **2019** :141-146. doi: 10.1016/j.suronc.2019.08.002.
(I.F. 2.521)

21. Sorrentino L, Regolo L, Scoccia E, Petrolo G, Bossi D, Albasini S, Caruso A, **Vanna R**, Morasso C, Mazzucchelli S, Truffi M, Corsi F.
"Autologous fat transfer after breast cancer surgery: An exact-matching study on the long-term oncological safety."
Eur J Surg Oncol. (**2019**) ;45(10):1827-1834. doi: 10.1016/j.ejso.2019.05.013.
(I.F. 3.959)

22. Truffi M, Mazzucchelli S, Bonizzi A, Sorrentino L, Allevi R, **Vanna R**, Morasso C, Corsi F.
"Nano-Strategies to Target Breast Cancer-Associated Fibroblasts: Rearranging the Tumor Microenvironment to Achieve Antitumor Efficacy."
Int J Mol Sci. (**2019)** 20(6). pii: E1263. doi: 10.3390/ijms20061263. Review.
(I.F. 4.556)

23. Pellacani P, Torres-Costa V, Agullò-Rueda F, **Vanna R**, Morasso C, Manso Silvan M.
"Laser writing of nanostructured silicon arrays for the SERS detection of biomolecules with inhibited oxidation"
*Colloids and Surfaces B: Biointerfaces. (***2019**) 174: 174-180 doi.org/10.1016/j.colsurfb.2018.11.010
(I.F. 3.997)

24. Gagni P, Romanato A, Bergamaschi G, Bettotti P, **Vanna R**, Piotto C, Morasso C, Chiari M, Cretich M, Gori A.
"A self-assembling peptide hydrogel for ultrarapid 3D bioassays"
Nanoscale Adv., 2019, 1, 490-497 DOI: 10.1039/C8NA00158H
(I.F. pending)

25. Sguassero A, Artiga A, Morasso C, Ramírez Jiménez R, Martin Rapùn R, Mancuso R, Agostini S, Hernis A, Abols A, Line A, Gualerzi A, Picciolini S, Bedoni M, Rovaris M and Gramatica F, de la Fuente JM,
Vanna R* (corr. author).
"A simple and universal enzyme-free approach for the detection of multiple microRNAs using a single nanostructured enhancer of surface plasmon resonance imaging".
*Analytical and bioanalytical chemistry, (***2018**), 1-13. https://doi.org/10.1007/s00216-018-1331-0
(I.F. 3.637)

26. Picciolini S, Gualerzi A, **Vanna R**, Sguassero A, Gramatica F, Bedoni M, Masserini M, Morasso CF.
"Detection and characterization of different brain-derived subpopulations of plasma exosomes by Surface Plasmon Resonance imaging".
*Anal Chem. (***2018**), 90 (15) 8873-8880 doi: 10.1021/acs.analchem.8b00941
(I.F. 6.042)

27. Zucca F*, **Vanna R* (co-first),** Francesca A. Cupaioli, Chiara Bellei, Antonella De Palma, Dario Di Silvestre, Pierluigi Mauri, Sara Grassi, Alessandro Prinetti, Luigi Casella, David Sulzer, Luigi Zecca. "Neuromelanin organelles are specialized autolysosomes that accumulate undegraded proteins and lipids in aging human brain and are likely involved in Parkinson's disease".
*npj Parkinson's Disease, (***2018***), volume 4, Article number: 17* DOI: 10.1038/s41531-018-0050-8
(I.F. 6.750)

28. Pandolfi L, Bellini M, **Vanna R**, Morasso C, Zago A, Carcano S, Avvakumova S, Bertolini JA, Rizzuto MA, Colombo M, Prosperi D.

"H-Ferritin Enriches the Curcumin Uptake and Improves the Therapeutic Efficacy in Triple Negative Breast Cancer Cells".
Biomacromolecules. (**2017**), 18 (10), pp 3318–3330. doi: 10.1021/acs.biomac.7b00974.
(I.F. 5.738)

29. Gori A, Cretich M, **Vanna R**, Sola L, Gagni P, Bruni G, Liprino M, Gramatica F, Burastero S, Chiari M.
"Multiple epitope presentation and surface density control enabled by chemoselective immobilization lead to enhanced performance in IgE-binding fingerprinting on peptide microarrays"
Anal Chim Acta. (**2017**) Aug 29;983:189-197. doi: 10.1016/j.aca.2017.06.027.
(I.F. 5.123)

30. Gualerzi A, Niada S, Giannasi C, Picciolini S, Morasso C, **Vanna R**, Rossella V, Masserini M5, Bedoni M, Ciceri F, Bernardo ME, Brini AT, Gramatica F.
"Raman spectroscopy uncovers biochemical tissue-related features of extracellular vesicles from mesenchymal stromal cells"
Scientific Reports, (**2017**) Aug 29;7(1):9820. doi: 10.1038/s41598-017-10448-1.
(I.F. 4.122)

31. De Lorenzi E., Chiari M., Colombo R., Cretich M., Sola L., **Vanna R.,** Gagni P., Bisceglia F., Morasso C, Lin J.S., Lee M., McGeer P.L., Barron A.E.
"Evidence that the Human Innate Immune Peptide LL-37 may be a Binding Partner of Amyloid-β and Inhibitor of Fibril Assembly"
Journal of Alzheimer's Disease, vol. 59, no. 4, pp. 1213-1226, (**2017)** doi: 10.3233/JAD-170223
(I.F. 3.476)

32. Picciolini S., Castagnetti N., **Vanna R**., Mehn D., Bedoni M., Gramatica F., Villani M., Calestani D., Pavesi M., Lazzarini L., Zappettini A. and Morasso C.
"Branched gold nanoparticles on ZnO 3D architecture as biomedical SERS sensors"
RSC Advances, 5, 93644-93651 (**2015**), DOI: 10.1039/C5RA13280K
(I.F. 2.936)

33. Morasso C; Picciolini S; Schiumarini D; Mehn D; Ojea-Jiménez I; Zanchetta G; **Vanna R**; Bedoni M; Prosperi D; Gramatica F
"Control of size and aspect ratio in hydroquinone-based synthesis of gold nanorods"
Journal of Nanoparticle Research, 17 (8), 1-7. (**2015)**, DOI:10.1007/s11051-015-3136-9
(I.F. 2.127)

34. **Vanna R* (corr. author).,** P. Ronchi, Lenferink A.T.M., Tresoldi C., Morasso C., Mehn D., Bedoni M., Picciolini S., Terstappen L., Ciceri F., Otto C. and Gramatica F.
"Label-free imaging and identification of typical cells of acute myeloid leukaemia and myelodysplastic syndrome by Raman microspectroscopy".
Analyst, 140, 1054-1064. (**2015)** DOI: 10.1039/C4AN02127D
* corresponding author
(I.F. 4.033)

35. Picciolini S., Mehn D., Morasso C., **Vanna R.,** Bedoni M., Pellacani P., Marchesini G., Valsesia A., Prosperi D., Tresoldi C., Ciceri F. and Gramatica F.
"Polymer nanopillar – Gold arrays as Surface Enhanced Raman Spectroscopy substrate for the simultaneous detection of multiple genes".
ACS Nano, 8 (10), 10496-10506, (**2014**). DOI: 10.1021/nn503873d.
(I.F. 13.709)

36. Verderio P., Pandolfi L., Mazzucchelli S., Marinozzi MR., **Vanna R.,** Gramatica F, Corsi F., Colombo M., Morasso C, and Prosperi
"Antiproliferative effect of ASC-J9 delivered by PLGA nanoparticles against estrogen-dependent breast cancer cells".
Molecular Pharmaceutics (**2014)**; 11(8): 2864-2875. DOI: 10.1021/mp500222k

(I.F. 4.556)

37. Mehn, D., Morasso, C., **Vanna, R**., Schiumarini, D., Bedoni, M., Ciceri, F., and Gramatica, F., "Surface Enhanced Raman Spectroscopy-Based Method for Leukemia Biomarker Detection Using Magnetic Core @ Gold Shell Nanoparticles,"
BioNanoScience, 4 (2) 119-127 (**2014**) DOI: 10.1007/s12668-014-0134-9
(I.F. 1.08)

38. Morasso, C., Mehn, D., **Vanna, R.,** Bedoni, M., Forvi, E., Colombo, M., Prosperi, D., and Gramatica, F., "One-step synthesis of star-like gold nanoparticles for surface enhanced Raman spectroscopy," *Materials Chemistry and Physics* 143(3), 1215–1221 (**2014**). Doi: 10.1016/j.matchemphys.2013.11.024
(I.F. 2.210)

39. Mehn, D., Morasso, C., **Vanna, R**., Bedoni, M., Prosperi, D., and Gramatica, F.
"Immobilised gold nanostars in a paper-based test system for surface-enhanced Raman spectroscopy," *Vibrational Spectroscopy* 68, 45–50 (**2013**). Doi: 10.1016/j.vibspec.2013.05.010
(I.F. 1.363)

40. Engelen, M., **Vanna, R.,** Bellei, C., Zucca, F.A., Wakamatsu, K., Monzani, E., Ito, S., Casella, L., and Zecca, L.,
"Neuromelanins of Human Brain Have Soluble and Insoluble Components with Dolichols Attached to the Melanic Structure,"
PLOS One 7(11), e48490 (**2012**). Doi: 10.1371/journal.pone.0048490
(I.F. 3.730)

41. Filice, M., **Vanna, R**., Terreni, M., Guisan, J.M., and Palomo, J.M.,
"Lipase-Catalyzed Regioselective One-Step Synthesis of Penta-O-acetyl-3-hydroxylactal,"
European Journal of Organic Chemistry 2009(20), 3327–3329 (**2009**). https://doi-org.pros.lib.unimi.it:2050/10.1002/ejoc.200900357
(I.F. 3.068)

Oral presentations as Invited Speaker

Vanna R.
"Bridging the Gap from Whole Body to Subcellular Level using Fluorinated Probes for MRI and Raman Microscopy"
Scix 2023
9 October 2023, Sparks (NE), USA

Vanna R.
"High-resolution Raman imaging of >300 cells from human patients affected by nine different leukemia subtypes: a global clustering approach"
ICAVS23
29 August 2023, Krakow, Polonia

Vanna R.
"Bridging the Gap from Whole Body to Subcellular Level using Bioorthogonal Fluorinated Probes for MRI and Raman Microscopy"
Chemistry meets Biology [seminar]
14 July 2023, Milan, Italy

Vanna R.
"From whole body to subcellular imaging by applying single bimodal fluorinated nanoprobes compatible with both MRI and Raman imaging"
Nanoinnovation 2022
22 September 2022, Rome, Italy

Vanna R.
"Biomedical Raman imaging: diffraction-limited biochemical mapping of biological samples by non-invasive and microscopy-based approaches"

Eurobioimaging Virtual Pub [seminar]
13 May 2022, virtual event.

Vanna R.
"Raman chemical imaging: visualizing the bio-molecular complexity using direct, non-destructive and label-free microscopy approaches"
OMICS and the emerging field of spatialOMICS [seminar]
5 October 2021, Milan, Italy

Vanna R.
"Vibrational imaging approaches for cancer diagnosis: status, needs and perspectives"
Lasers Fighting Cancer Symposium (organized by "LaserLab Europe") [seminar]
25 May 2021, virtual event

Vanna R.

" Biophotonics and nanotechnologies to improve diagnosis and patient care"
Biophysics Workshop at Exeter University [seminar]
Oct 2, 2018. **Exeter**, UK

Vanna R.

"Toward the development of a nanobiosensor for the PCR-free detection of miRNAs related to the progression of Multiple Sclerosis"
Nanomedicine Symposium CEN@UniMiB: Lombardy nanomedicine community joins Europe.
Oct 18, 2016. **Milano**, Italy.

Vanna R.
"Raman and SERS-Based Approaches for the Diagnosis and Monitoring of Cancer and Neurodegenerative Diseases"
RamanFest2016,
May 19-20, 2016. **Berlin**, Germany.

Oral presentations as Speaker (selection)

Vanna R., Morasso C., Marcinnò B., Piccotti F., Torti E., Altamura D., Albasini S., Agozzino M., Villani L., Sorrentino L., Bunk O., Leporati F., Giannini C., Corsi F.

"Raman imaging of breast microcalcifications from a relevant patient cohort reveals new insights into the vibrational features of these important cancer signs"
FACSS SCIX2019, Palm Spring, CA, USA, October 13-18 2019

Morasso C., Truffi M. , Vanna R., Albasini S., Sorrentino L., Corsi F..
"Raman Spectroscopy reveals distinct metabolic patterns in Crohn's Disease subjects vs healthy controls"
FACSS SCIX2019, Palm Spring, CA, USA, October 13-18 2019

A. Sguassero, Á. Artiga, C. Morasso, R. Ramirez Jimenez, R. Martín Rapún, R. Mancuso, S. Agostini1, A. Hernis, A. Abols, A. Linē, A. Gualerzi, S. Picciolini, M. Bedoni, M. Rovaris, F. Gramatica, J. M. de la Fuente, R. Vanna.
"Development of a sequence-independent and enzyme-free approach for the detection of multiple microRNAs using a single nanostructured enhancer of SPRi"
European Biosensors Symposium, Firenze, Italy, 18-21 February 2019.

Vanna R, Abols A, Sguassero A, Morasso C, Alvaro Artiga Folch, Ambra Hernis, Rafael Ramirez Jimenez, Roberta Mancuso, Simone Agostini, Silvia Picciolini, Alice Gualerzi, Marzia Bedoni, Jesus M. de la Fuente, Furio Gramatica, Aija Line and Marco Rovaris.
"Development of a PCR-free approach for the detection of multiple miRNAs related to MS: results from the "NanoPlasmiRNA" ERA-NET project"
NeuroMI, Milano, 13-15 September 2017.

Vanna R, Sguassero A, Morasso C, Folch A, Ramírez Jiménez R, Hernis A , Abols A, Mancuso R, Agostini S, Picciolini S, Gualerzi A, Bedoni M, Line A, de la Fuente JM, Rovaris M and Gramatica F. "Development of a SPRi-based PCR-free approach for the multiplexing detection of circulating miRNAs related to multiple sclerosis"
ICAS 2017, Hainan, China · May 5th to 8th, 2017

Vanna R, Valentini F, Morasso C, Boaretto A, Pandolfi L, Verderio P, Picciolini S, Gualerzi A, Bedoni M, Prosperi D, Gramatica F. "Raman Imaging for the Intracellular Label-Free detection and study of Drug Nanocarriers and Graphene nanoparticles",
Biophotonics2015, May 20-22, 2015, Florence, Italy

Vanna R., Ronchi P., Lenferink ATM., Tresoldi C., Morasso C., Mehn D., Bedoni M., Terstappen LWMM., Ciceri F., Otto C., Gramatica F. "Raman microspectroscopy enables the identification of different cell subpopulations in Acute Leukemia patients" III Italian "Meeting on Raman Spectroscopy and Non-linear Optical Effect"
GISR2014. 9-11 June 2014. Parma, Italy

Vanna, R., Tresoldi, C., Ronchi, P., Lenferink, A., Morasso, C., Mehn, D., Bedoni, M., Terstappen, L.W.M.M., Ciceri, F., Otto, C. "Raman spectroscopy for the assessment of acute myeloid leukemia: a proof of concept study,"
SPIE BiOS Biomedical Vibrational Spectroscopy VIII: Advances in Research and Industry, San Francisco (USA) (1-6 Feb 2014).

Vanna, R., Tresoldi, C., Lenferink, A., Ronchi, P., Morasso, C., Mehn, D., Bedoni, M., Pignatari C., Terstappen, L.W.M.M., Ciceri, F., Otto, C. "Raman spectroscopy for the assessment of Acute myeloid leukaemia subtypes". ECSBM 15, 25-30 August 2013, Oxford (UK)

Projects and grants

September 2023 – August 2025
Co-PI - Unit coordinator

"OPTIMA- BiOmimetic fluorinated nanoProbes for multIscale Tumor detection by MRI and Advanced Raman techniques"
Funding agency: Ministero dell'Università e della Ricerca
Total funding: **€ 256.996,168**

September 2022 – Marzo 2026
Unit coordinator

"CHARM - Chemometric histopathology via coherent Raman imaging for precision medicine"
Funding agency: HORIZON-EIC-2021-TRANSITIONCHALLENGES-01-01
Total funding: **€ 2.441.979,00**

September 2022 – Marzo 2026
WP leader

"TROPHY - ulTRafast hOlograPHic FTIR microscopY"
Funding agency: HORIZON-EIC-2021-PATHFINDEROPEN-01-01
Total funding: **€ 3.248.388**

December 2020 – November 2024 (four years)
Tasks leader – part of the leading team

"CRIMSON - Coherent Raman Imaging for the Molecular Study of the OrigiN of diseases"
Funding agency: EU – Horizon2020 - Coherent Raman Imaging for the Molecular Study of the OrigiN of diseases' — 'CRIMSON'
Total funding: **€ 5.132.801**

March 2019 – February 2022 (three years)
Researcher (co-coordinator)

"ABISens - Monitoring of Acquired Brain Injury and recovery biomarkers by the combined label-free nanoSensing of multiple circulating molecules"
Funding agency: Euronanomed II - ERA-NET – H2020
Coordinator: Prof. Laura Lechuga (Spain)
Partners: Italy (Dr. Caterina Pistarini, Dr. Renzo Vanna), France (Prof. Carmelo Di Primo)
Total funding: **€ 598.000**

November 2018 – October 2021 (three years)
Researcher

"Sviluppo di nuovi metodi basati su nanotecnologie e biofotonica per la quantificazione di marcatori diagnostici e prognostici circolanti in seguito a danno cerebrale"
Funding agency: Italian Ministry of Health (5xMille)
Coordinator: Prof. Fabio Corsi
Total funding: **€ 108.863**

January 2016 - December 2017
Project Coordinator

"NanoPlasmiRNA - Universal Nano-enhancer for a new multiplexing Surface Plasmon Resonance Imaging analysis of miRNAs in multiple sclerosis"
http://www.labion.eu/nanoplasmirna
Funding agency: Euronanomed II - ERA-NET - FP7
Coordinator: Renzo Vanna (Italy)

Partners: Spain (Prof. Jesus M. de la Fuente), Latvia (Prof. Aija Line), USA (Prof. Dev P. Arya)
Total funding: **€ 490.000**

January 2015 - December 2017 (ongoing)
Principal Investigator

"Sviluppo e valutazione delle potenzialità di un metodo basato su Imaging di Risonanza Plasmonica di Supericie per la misura di MircoRNA legati alla progressione della sclerosi multipla"
Funding agency: Italian Ministry of Health (Ricerca Corrente)
Total funding: **€ 90.400**

February 2014 - February 2016
Executive Researcher

"InNaSERSS - Development of Integrated Nanorray based SERS System for Leukemia biomarker detection"
http://www.labion.eu/innaserss/
Funding agency: Euronanomed II - ERA-NET - FP7
Coordinator: Carlo Morasso (FDG, Italy)
Partners: Vauchier Claude (CEA, France); Christophe Bonneville (Resolution Spectra System, France); Marchesini Gerardo (BioSyPher, UK);
Total funding: **€ 440,286**

January 2014 - December 2014
Executive Researcher

"Raman imaging su cellule per diagnostica avanzata label-free: studio esplorativo per la classificazione di diversi sottotipi di leucemia mieloide acuta."
Funding agency: Italian Ministry of Health (Ricerca Corrente)
Coordinator: Dr. Marzia Bedoni
Total funding: **€ 60.443**

January 2012 - December 2013
Young Researcher

" An innovative, nanostructured biosensor for early diagnosis and minimal residual disease assessment of cancer, using Surface Enhanced Raman Spectroscopy"
Funding agency: CARIPLO Fundation, International Recruitment Call 2011 - Project
Coordinator: Furio Gramatica (FDG, Italy)
Total funding**: €340.000**
This grant supported one post-doctoral year in The Netherland, Twente University, as part of the project aims.

Mother tongue | **Italian**

Self-assessment	**Understanding**		**Speaking**		**Writing**
European level (*)	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
French	A2	A2	A1	A1	A1

(*) Common European Framework of Reference for Languages

Driving licences | Italian driving licence Type A (motorcycle) and B (car)

Other licences | Private Pilots License JAR-FCL (FLIGHT CREW LICENSING (Aeroplane))
Around 100 hours of flight with single engine aircrafts

Milan, October 2023

Renzo Vanna