

CURRICULUM VITAE

MASSIMO CARUSO

Assistant Professor of Biochemistry – Department of Biomedical and Biotechnological Sciences – University of Catania (Italy)

UNIVERSITY STUDIES AND QUALIFICATIONS:

- 2023-act **Adjunct Professor of Biology** - “College of Science and Technology” Temple University, Philadelphia (PE, USA)
- 2020-act **Assistant Professor of Biochemistry** - University of Catania - Department of Biomedical and Biotechnological Science (already qualified for the position of Associate Professor).
- 2021 **National scientific qualification** to second-rate professor (**associate professor**) achieved in June 1st, 2021.
- 2017-2020 **Contract Professor** - University of Catania - Department of Medical and Surgical Sciences and Advanced Technologies "G.F. Ingrassia" - Degree Course: “Biomedical Laboratory Technician”. SSD MED 04: Immunopathologies Techniques.
- 2017-2020 **Contract Professor** - University of Catania - Department of Medical and Surgical Sciences and Advanced Technologies "G.F. Ingrassia" - Degree Course: “Biomedical Laboratory Technician”. SSD MED 04: Immunopathology.
- 2016-2020 **Contract Professor** - University of Catania - Department of Medical and Surgical Sciences and Advanced Technologies "G.F. Ingrassia" - Degree Course: “Nursing Sciences”. SSD MED 04: General and Clinical Pathology .
- 2016-2017 **Contract Professor** - University of Catania - Department of Biological, Geological and Environmental Sciences - Degree Course: “Biological Sciences”. SSD BIO 06: Cytology and Histology.
- 2019-act **co-Principal Investigator (co-PI)** for the international “Replica” project, multicentric study that aim to replicate in vitro studies in toxicology of smoke and smokeless products. Founded from ECLAT Srl.
- 2016-2020 **Postdoctoral Research** - University of Catania - Department of Clinical and Experimental Medicine
- 2014-2016 **Principal Investigator Site** for the University of Catania in the European Project “U-BIOPRED” (Unbiased BIOMarkers for the PREDiction of respiratory disease outcomes” – European Communities’s Seventh Framework Programme (FP7/2007-2013) – Innovative Medicine Initiative (IMI) (P.I. Prof Peter Sterk – Full professor of the Pathophysiology and Phenotyping of Asthma and COPD - Faculty of Medicine (Amsterdam Medical Centre of the Universiteit van Amsterdam (AMC-UvA)).
- 2011-2016 **Researcher** in 2 PO-FESR National supported research project in Allergy and Immunology. Institute for Medical and Environmental Research (IRMA) and University of Catania.
- 2006-2018 **Thesis Correlator and Relator** of over 40 Master's degree Thesis (Faculties of Pharmacy, Biology and Medicine).
- 2006-2007 **Research Associate** – Project “Study of cytokines profile in sputum from COPD patients” University of Catania - Department of Respiratory Diseases
- 2006 **PhD in Respiratory Diseases** – University of Catania. Thesis: "Oxidized Low Density Lipoproteins Promote Eosinophil Activation". Tutor: Prof. Carlo Vancheri. Coordinator: Prof. Ugo Giuseppe Di Maria
- 2001 **Master’s Degree in Biological Sciences**, University of Catania. Thesis: "Detection of Enterovirus RNA in the first diagnosis of juvenile diabetes”. Supervisor: Prof. Guido Scalia

PROFESSIONAL EXPERIENCE:

- 2020-act **Assistant Professor** - University of Catania - Department of Biomedical and Biotechnological Science
- 2018-2020 **Visiting Researcher - University of Catania** - Department of Biomedical and Biotechnological Sciences (BIOMETEC)
- 2016-2020 **Postdoctoral Research Fellow - University of Catania** - Department of Clinical and Experimental Medicine (Asthma and Immunology studies)
- 2011-2016 **Research Consultant - University of Catania** - Department of Clinical and Experimental Medicine (Asthma and Immunology studies)

- 2013-2015 **Researcher – IRMA Srl – Principal Investigator site - Project: ALI.FU.ID.E.A.** (Functional Foods and Nutraceutical Supplements based on White Lupine and Citrus derivatives) – Project funded by a National Grant: POR FESR Sicilia 2007-2013 Linea di intervento 4.1.1.1 (P.I. for the partner – IRMA Srl).
- 2012-act **Research Consultant – LIAF** (Lega Italiana Antifumo – Italian Anti-Smoking League)
- 2012-2013 **Research Consultant – IRMA Srl - Project: S.A.M.A.R.A.** (Sistema Aerobiologico Molecolare e Analisi di Reattività Ambientale - Molecular Aerobiological System and Environmental Reactivity Analysis) – Project funded by a National Grant (PO FESR 2007/2013 - Avviso 2011 - Asse IV, Obiettivo Operativo 4.1.1 Linea di Intervento 4.1.1.2 (GURS n. 14 del 1/04/2011 e D.D.G. 2068/3 in GURS n. 23 del 27/05/2010).
- 2012-2012 **Technical Director - I.R.M.A.** (Istituto di Ricerca Medica ed Ambientale – Institute for Medical and Environmental Research) S.r.l – Registered in the National Register of Research Laboratories - Decree of Ministry of Education, University and Research n° 1417 GU n° 160 – 12/07/2005.
- 2010-2012 **Senior Researcher - I.R.M.A.** (Istituto di Ricerca Medica ed Ambientale – Institute for Medical and Environmental Research) S.r.l – Registered in the National Register of Research Laboratories - Decree of Ministry of Education, University and Research n° 1417 GU n° 160 – 12/07/2005.
- 2009-2010 **Senior Research Consultant** for the project “**Bionetwork**” – “**Group: Red Biotechnology**” (Biotechnologies applied to human health) - **Biosistema S.c.r.l.**, public-private capital company and owner of the “Technological Competence Center for Advanced Biology” – Coordinated by Università degli Studi di Sassari, 07100 Sassari (SS)
- 2006-2011 **Researcher - I.R.M.A.** (Istituto di Ricerca Medica ed Ambientale – Institute for Medical and Environmental Research) S.r.l – Registered in the National Register of Research Laboratories - Decree of Ministry of Education, University and Research n° 1417 GU n° 160 – 12/07/2005.
- 2006-2011 **Laboratory Manager - I.R.M.A.** (Istituto di Ricerca Medica ed Ambientale) S.r.l – Iscritto all'Albo Nazionale dei Laboratori di Ricerca – Decree of MIUR n° 1417 GU n° 160 del 12/07/2005.

REVIEWER FOR SCIENTIFIC JOURNALS, among which:

- International Journal of Chronic Obstructive Pulmonary Disease
- International Immunopharmacology
- Therapeutic Advances in Chronic Disease
- BMC Public Health
- PLOS ONE
- Frontiers in Physiology
- Toxics

EDITORIAL POSITIONS:

- Frontiers in Physiology - Associate Editor in Respiratory Physiology and Pathophysiology BMC
- Public Health - Associate Editor (resigned since April 2023)
- International Journal of Environmental Research and Public Health – Associate Editor (resigned since February 2023)

REVIEWER FOR GRANT PROGRAMME:

- 2nd e 3rd Call of the Fellowship International Program **WHRI-ACADEMY (FP7 Marie Curie COFOUND scheme)**
- **European Respiratory Society Fellowship Grant (2017-2018)**

SPEAKER AND CHAIRMAN of a number of national and international symposia (EAACI, AAAAI, ERS, SiBioC).

GRANTS:

- 2012 AAAAI Fellow in Training International Travel Grant Scholarship (American Academy of Allergy, Asthma and Immunology)

- 2014 AAAAI Fellow in Training International Travel Grant Scholarship (American Academy of Allergy, Asthma and Immunology)
- 2014 Alain de Weck Travel Grant - 30th Symposium of the CIA (Collegium International Allergologicum) - Petersberg, Germany, 13- 18 September 2014.

PATENTS:

- Italian Patent for the industrial invention N. 0001420985 del 19/02/2016 “Method and Kit for in vitro diagnostics of "delayed" adverse drug reactions”. Application N. 102011901953669/FI2011A000120 submitted on June 13rd 2011 (obtained on June 2016).

SCIENTIFIC PUBLICATIONS

(H index = 29; Total citations = 3465 as reported by Scopus, November 10th, 2023)

1. Emma R, Fuochi V, Distefano A, Partsinevelos K, Rust S, Zadjali F, Al Tobi M, Zadjali R, Alharthi Z, Pulvirenti R, Furneri PM, Polosa R, Sun A, Caruso M*, Li Volti G; Replica Project Group. Cytotoxicity, mutagenicity and genotoxicity of electronic cigarettes emission aerosols compared to cigarette smoke: the REPLICA project. *Sci Rep.* 2023 Oct 30;13(1):17859. doi: 10.1038/s41598-023-44626-1. PMID: 37903810; PMCID: PMC10616076.
2. Versi A, Ivan FX, Abdel-Aziz MI, Bates S, Riley J, Baribaud F, Kermani NZ, Montuschi P, Dahlen SE, Djukanovic R, Sterk P, Maitland-Van Der Zee AH, Chotirmall SH, Howarth P, Adcock IM, Chung KF; U-BIOPRED consortium. Haemophilus influenzae and Moraxella catarrhalis in sputum of severe asthma with inflammasome and neutrophil activation. *Allergy.* 2023 Nov;78(11):2906-2920. doi: 10.1111/all.15776. Epub 2023 Jun 7. PMID: 37287344.
3. Yasinska V., Gómez C., Kolmert J., Ericsson M., Pohanka A., James A., Andersson L.I., Sparreman-Mikus M., Sousa A.R., Riley J.H., Bates S., Bakke P.S., Kermani N.Z., Caruso M., Chanez P., Fowler S.J., Geiser T., Howarth P.H., Horváth I., Krug N., Montuschi P., Sanak M., Behndig A., Shaw D.E., Knowles R.G., Dahlén B., van der Zee A.-H.M., Sterk P.J., Djukanovic R., Adcock I.M., Chung K.F., Wheelock C.E., Dahlén S.-E., Jonsson E.W. Low levels of endogenous anabolic androgenic steroids in females with severe asthma taking corticosteroids. (2023) *ERJ Open Research*, 9 (5), art. no. 00269-2023, DOI: 10.1183/23120541.00269-2023
4. Pavlovic D., Miloradovic D., Stojanovic M.D., Harrell C.R., Polosa R., Rust S., Volti G.L., Caruso M., Jakovljevic V., Djonov V., Volarevic V. Cigarette smoke attenuates mesenchymal stem cell-based suppression of immune cell-driven acute liver failure. (2023) *Toxicology Letters*, 385, pp. 12 – 20. DOI: 10.1016/j.toxlet.2023.08.006
5. Abdel-Aziz M.I., Thorsen J., Hashimoto S., Vijverberg S.J.H., Neerincx A.H., Brinkman P., Van Aalderen W., Stokholm J., Rasmussen M.A., Roggenbuck-Wedemeye M., Vissing N.H., Mortensen M.S., Brejnrod A.D., Fleming L.J., Murray C.S., Fowler S.J., Frey U., Bush A., Singer F., Hedlin G., Nordlund B., Shaw D.E., Chung K.F., Adcock I.M., Djukanovic R., Auffray C., Bansal A.T., Sousa A.R., Wagers S.S., Chawes B.L., Bønnelykke K., Sørensen S.J., Kraneveld A.D., Sterk P.J., Roberts G., Bisgaard H., Maitland-Van Der Zee A.H., Kolmert J., James A., Sousa A.R., Riley J.H., Bates S., Bakke P.S., Caruso M., Chanez P., Fowler S.J., Geiser T., Howarth P., Horvath I., Krug N., Montuschi P., Sanak M., Behndig A., Shaw D.E., Knowles R.G., Holweg C.T.J., Wheelock A.M., Dahlen B., Alving K., Chung K.F., Dahlen S.-E., Wheelock C.E., Andersson L., De Meulder B., Lutter R., Mumby S., Roberts G., Uddin M., Wagers S.S., Kermani N.Z. Oropharyngeal Microbiota Clusters in Children with Asthma or Wheeze Associate with Allergy, Blood Transcriptomic Immune Pathways, and Exacerbation Risk. (2023) *American Journal of Respiratory and Critical Care Medicine*, 208 (2), pp. 142 – 154. DOI: 10.1164/rccm.202211-2107OC
6. Hou, R., Ye, G., Cheng, X., Shaw, D.E., Bakke, P.S., Caruso, M., Dahlen, B., Dahlen, S.-E., Fowler, S.J., Horváth, I., Howarth, P., Krug, N., Montuschi, P., Sanak, M., Sandström, T., Auffray, C., De Meulder, B., Sousa, A.R., Adcock, I.M., Fan Chung, K., Sterk, P.J., Skipp, P.J., Schofield, J., Djukanović, R. The role of inflammation in anxiety and depression in the European U-BIOPRED asthma cohorts. (2023) *Brain, Behavior, and Immunity*, 111, pp. 249-258. DOI: 10.1016/j.bbi.2023.04.011
7. Fuochi, V., Floresta, G., Emma, R., Patamia, V., Caruso, M., Zagni, C., Ronchi, F., Ronchi, C., Drago, F., Rescifina, A., Furneri, P.M. Heparan Sulfate and Enoxaparin Interact at the Interface of the Spike Protein of HCoV-229E but Not with HCoV-OC43. (2023) *Viruses*, 15 (3), art. no. 663. DOI: 10.3390/v15030663
8. Brandsma, J., Schofield, J.P.R., Yang, X., Strazzeri, F., Barber, C., Goss, V.M., Koster, G., Bakke, P.S., Caruso, M., Chanez, P., Dahlén, S.-E., Fowler, S.J., Horváth, I., Krug, N., Montuschi, P., Sanak, M., Sandström, T., Shaw, D.E., Chung, K.F., Singer, F., Fleming, L.J., Adcock, I.M., Pandis, I., Bansal, A.T.,

- Corfield, J., Sousa, A.R., Sterk, P.J., Sánchez-García, R.J., Skipp, P.J., Postle, A.D., Djukanović, R., the U-BIOPRED Study Group. Stratification of asthma by lipidomic profiling of induced sputum supernatant. (2023) *Journal of Allergy and Clinical Immunology*. DOI: 10.1016/j.jaci.2023.02.032
9. Caponnetto, P., Campagna, D., Maglia, M., Benfatto, F., Emma, R., Caruso, M., Caci, G., Busà, B., Pennisi, A., Ceracchi, M., Migliore, M., Signorelli, M. Comparing the Effectiveness, Tolerability, and Acceptability of Heated Tobacco Products and Refillable Electronic Cigarettes for Cigarette Substitution (CEASEFIRE): Randomized Controlled Trial (2023) *JMIR Public Health and Surveillance*, 9, art. no. e42628. DOI: 10.2196/42628
 10. Longhitano L, Vicario N, Forte S, Giallongo C, Broggi G, Caltabiano R, Barbagallo GMV, Altieri R, Raciti G, Di Rosa M, Caruso M, Parenti R, Liso A, Busi F, Lolicato M, Mione MC, Li Volti G, Tibullo D. Lactate modulates microglia polarization via IGFBP6 expression and remodels tumor microenvironment in glioblastoma. *Cancer Immunol Immunother*. 2023 Jan;72(1):1-20. doi: 10.1007/s00262-022-03215-3. Epub 2022 Jun 3. Erratum in: *Cancer Immunol Immunother*. 2022 Jul 12; PMID: 35654889; PMCID: PMC9813126.
 11. Emma R⁺, Caruso M⁺, Campagna D, Pulvirenti R, Li Volti G. The Impact of Tobacco Cigarettes, Vaping Products and Tobacco Heating Products on Oxidative Stress. *Antioxidants (Basel)*. 2022 Sep 16;11(9):1829. doi: 10.3390/antiox11091829. PMID: 36139904; PMCID: PMC9495690.
 12. Brandsma J, Schofield JPR, Yang X, Strazzeri F, Barber C, Goss VM, Koster G, Bakke PS, Caruso M, Chanez P, Dahlén SE, Fowler SJ, Horváth I, Krug N, Montuschi P, Sanak M, Sandström T, Shaw DE, Chung KF, Singer F, Fleming LJ, Adcock IM, Pandis I, Bansal AT, Corfield J, Sousa AR, Sterk PJ, Sánchez-García RJ, Skipp PJ, Postle AD, Djukanović R; U-BIOPRED Study Group. Stratification of asthma by lipidomic profiling of induced sputum supernatant. *J Allergy Clin Immunol*. 2023 Mar 12:S0091-6749(23)00293-2. doi: 10.1016/j.jaci.2023.02.032. Epub ahead of print. PMID: 36918039.
 13. Hoda U, Pavlidis S, Bansal AT, Takahashi K, Hu S, Ng Kee Kwong F, Rossios C, Sun K, Bhavsar P, Loza M, Baribaud F, Chanez P, Fowler SJ, Horvath I, Montuschi P, Singer F, Musial J, Dahlen B, Krug N, Sandstrom T, Shaw DE, Lutter R, Fleming LJ, Howarth PH, Caruso M, Sousa AR, Corfield J, Auffray C, De Meulder B, Lefaudeux D, Dahlen SE, Djukanovic R, Sterk PJ, Guo Y, Adcock IM, Chung KF; U-BIOPRED study group. Clinical and transcriptomic features of persistent exacerbation-prone severe asthma in U-BIOPRED cohort. *Clin Transl Med*. 2022 Apr;12(4):e816. doi: 10.1002/ctm2.816. PMID: 35474304; PMCID: PMC9043117.
 14. Maglia M, Quattropani MC, Polosa R, Panassidi A, Caruso M, Mangione M, Nicolosi V, Mazzeppi SD, Lenzo V, Sardella A, Caponnetto P. Qualitative study on the perception of combustible cigarettes, e-cigarettes and heated tobacco cigarettes among pregnant women. *J Addict Dis*. 2023 Mar 9:1-11. doi: 10.1080/10550887.2023.2184302. Epub ahead of print. PMID: 36892131.
 15. Caruso M, Emma R, Distefano A, Rust S, Poulas K, Giordano A, Volarevic V, Mesiakaris K, Boffo S, Arsenijevic A, Karanasios G, Pulvirenti R, Ilic A, Canciello A, Zuccarello P, Ferrante M, Polosa R, Li Volti G. Comparative assessment of electronic nicotine delivery systems aerosol and cigarette smoke on endothelial cell migration: the Replica Project. *Drug Test Anal*. 2022 Jul 25. doi: 10.1002/dta.3349. Epub ahead of print. PMID: 35877466.
 16. Hajat, C., Stein, E., Selya, A., Polosa, R., Alaimo, S., Anfuso, C.D., Barbagallo, I., Basile, F., Battiato, S., Benhamou, B., Bertino, G., Bianchi, A., Biondi, A.G., Brandi, M.L., Cacciola, E., Cacciola, R.R., Cacopardo, B.S., Calogero, A.E., Cambria, M.T., Campagna, D., Caraci, F., Cariola, A., Caruso, M., Caponnetto, P., Ciancio, A., Cibella, F., Mauro, M., Piazza, J., Stefano, A., Drago, F., Failla, S., Faraci, R., Ferlito, S., Ferrante, M., Ferro, A., Ferro, G.A., Frasca, F., Frittitta, L., Furneri, P.M., Gagliano, A., Gallo, G., Galvano, F., Grasso, G., Guarino, F., Gulino, A., Jannini, E.A., Vignera, S.L., Lazzarino, G., Ledda, C., Leonardi, R.M., Volti, G.L., Longo, A., Lupo, G., Malerba, M., Marletta, L., Nicolosi, G., Nocera, F., Conti, G.O., Palazzo, G., Parenti, R., Pedullà, E., Pulvirenti, A., Purrello, F., Rapisarda, F., Rapisarda, V., Rizzo, R., Ronsisvalle, S., Ronsisvalle, G., Ruggieri, M., Santagati, M.C., Satriano, C., Sciacca, L., Signorelli, M.S., Tatullo, M., Tibullo, D., Tomaselli, V., Volarevic, V., Zanolì, L., Zappalà, A., The CoEHAR study group. Analysis of common methodological flaws in the highest cited e-cigarette epidemiology research. (2022) *Internal and Emergency Medicine*, 17 (3), pp. 887-909. DOI: 10.1007/s11739-022-02967-1
 17. Tiotiu, A., Badi, Y., Kermani, N.Z., Sanak, M., Kolmert, J., Wheelock, C.E., Hansbro, P.M., Dahlén, S.-E., Sterk, P.J., Djukanovic, R., Guo, Y., Mumby, S., Adcock, I.M., Chung, K.F., Hoda, U., Rossios, C., Bel, E., Rao, N., Myles, D., Compton, C., Van Geest, M., Howarth, P., Roberts, G., Lefaudeux, D., De Meulder, B., Bansal, A.T., Knowles, R., Erzen, D., Wagers, S., Krug, N., Higenbottam, T., Matthews, J., Erpenbeek, V., Carayannopoulos, L., Roberts, A., Supple, D., deBoer, P., Caruso, M., Chanez, P., Horváth, I., Musial, J., Sandström, T., U-BIOPRED Consortium Project Team

Association of Differential Mast Cell Activation with Granulocytic Inflammation in Severe Asthma (2022) *American Journal of Respiratory and Critical Care Medicine*, 205 (4), pp. 397-411. DOI: 10.1164/rccm.202102-0355OC

18. Alba A, Villaggio G, Messina GML, Caruso M, Federico C, Cambria MT, Marletta G, Sinatra F. Cytostatic Effects of Polyethyleneimine Surfaces on the Mesenchymal Stromal Cell Cycle. *Polymers (Basel)*. 2022 Jun 29;14(13):2643. doi: 10.3390/polym14132643. PMID: 35808689; PMCID: PMC9269326.
19. Caruso M, Emma R, Distefano A, Rust S, Poulas K, Zadjali F, Giordano A, Volarevic V, Mesiakaris K, Al Tobi M, Boffo S, Arsenijevic A, Zuccarello P, Ferrante M, Polosa R, Li Volti G and the Replica Project Group. Electronic nicotine delivery systems exhibit reduced bronchial epithelial cells toxicity compared to cigarette: the Replica Project. *Sci Rep* 11, 24182 (2021). <https://doi.org/10.1038/s41598-021-03310-y>
20. Abdel-Aziz MI, Vijverberg SJH, Neerinx AH, Brinkman P, Wagener AH, Riley JH, Sousa AR, Bates S, Wagers SS, De Meulder B, Auffray C, Wheelock AM, Bansal AT, Caruso M, Chanez P, Uddin M, Corfield J, Horvath I, Krug N, Musial J, Sun K, Shaw DE, Sandström T, Montuschi P, Fowler SJ, Lutter R, Djukanovic R, Howarth P, Skipp P, Sanak M, Adcock IM, Chung KF, Sterk PJ, Kraneveld AD, Maitland-van der Zee PharmD AH; U-BIOPRED Study Group. A multi-omics approach to delineate sputum microbiome-associated asthma inflammatory phenotypes. *Eur Respir J*. 2021 Nov 25:2102603. doi: 10.1183/13993003.02603-2021. Epub ahead of print. PMID: 34824056.
21. Reinke SN, Naz S, Chaleckis R, Gallart-Ayala H, Kolmert J, Kermani NZ, Tiotiu A, Broadhurst DI, Lundqvist A, Olsson H, Ström M, Wheelock AM, Gómez C, Ericsson M, Sousa AR, Riley JH, Bates S, Scholfield J, Loza M, Baribaud F, Bakke PS, Caruso M, Chanez P, Fowler SJ, Geiser T, Howarth P, Horváth I, Krug N, Montuschi P, Behndig A, Singer F, Musial J, Shaw DE, Dahlén B, Hu S, Lasky-Su J, Sterk PJ, Chung KF, Djukanovic R, Dahlén SE, Adcock IM, Wheelock CE; U-BIOPRED Study Group#. Urinary metabotype of severe asthma evidences decreased carnitine metabolism independent of oral corticosteroid treatment in the U-BIOPRED study. *Eur Respir J*. 2021 Nov 25:2101733. doi: 10.1183/13993003.01733-2021. Epub ahead of print. PMID: 34824054.
22. Mikus MS, Kolmert J, Andersson LI, Östling J, Knowles RG, Gómez C, Ericsson M, Thörngren JO, Khoonsari PE, Dahlén B, Kupczyk M, De Meulder B, Auffray C, Bakke PS, Beghe B, Bel EH, Caruso M, Chanez P, Chawes B, Fowler SJ, Gaga M, Geiser T, Gjomarkaj M, Horváth I, Howarth PH, Johnston SL, Joos G, Krug N, Montuschi P, Musial J, Niżankowska-Mogilnicka E, Olsson HK, Papi A, Rabe KF, Sandström T, Shaw DE, Siafakas NM, Uhlen M, Riley JH, Bates S, Middelveld RJM, Wheelock CE, Chung KF, Adcock IM, Sterk PJ, Djukanovic R, Nilsson P, Dahlén SE, James A; U-BIOPRED (Unbiased Biomarkers for the Prediction of Respiratory Disease outcome) Study Group; BIOAIR (Longitudinal Assessment of Clinical Course and Biomarkers in Severe Chronic Airway Disease) Consortium. Plasma proteins elevated in severe asthma despite oral steroid use and unrelated to Type-2 inflammation. *Eur Respir J*. 2021 Nov 4:2100142. doi: 10.1183/13993003.00142-2021. Epub ahead of print. PMID: 34737220.
23. Caruso M, Emma R, Rust S, Distefano A, Carota G, Pulvirenti R, Polosa R, Li Volti G. Screening of different cytotoxicity methods for the assessment of ENDS toxicity relative to tobacco cigarettes. *Regul Toxicol Pharmacol*. 2021 Oct;125:105018. doi: 10.1016/j.yrtph.2021.105018. Epub 2021 Jul 24. PMID: 34314750.
24. Polosa R, Emma R, Cibella F, Caruso M, Conte G, Benfatto F, Ferlito S, Gulino A, Malerba M, Caponnetto P. Impact of exclusive e-cigarettes and heated tobacco products use on muco-ciliary clearance. *Ther Adv Chronic Dis*. 2021 Aug 12;12:20406223211035267. doi: 10.1177/20406223211035267. PMID: 34422253; PMCID: PMC8371723.
25. Caruso M, Distefano A, Emma R, Di Rosa M, Carota G, Rust S, Polosa R, Zuccarello P, Ferrante M, Raciti G, Li Volti G. Role of Cigarette Smoke on Angiotensin-Converting Enzyme-2 Protein Membrane Expression in Bronchial Epithelial Cells Using an Air-Liquid Interface Model. *Front Pharmacol*. 2021 Mar 30;12:652102. doi: 10.3389/fphar.2021.652102. PMID: 33859566; PMCID: PMC8042260.
26. Badi YE, Pavel AB, Pavlidis S, Riley JH, Bates S, Kermani NZ, Knowles R, Kolmert J, Wheelock CE, Worsley S, Uddin M, Alving K, Bakke PS, Behndig A, Caruso M, Chanez P, Fleming LJ, Fowler SJ, Frey U, Howarth P, Horváth I, Krug N, Maitland-van der Zee AH, Montuschi P, Roberts G, Sanak M, Shaw DE, Singer F, Sterk PJ, Djukanovic R, Dahlen SE, Guo YK, Chung KF, Guttman-Yassky E, Adcock IM; U-BIOPRED Study Group. Mapping atopic dermatitis and anti-IL-22 response signatures to type 2-low severe neutrophilic asthma. (2022) *Journal of Allergy and Clinical Immunology*, 149 (1), pp. 89-101. DOI: 10.1016/j.jaci.2021.04.010

27. Zuccarello P, Rust S, Caruso M (corr. Author), Emma R, Pulvirenti R, Favara C, Polosa R, Li Volti G, Ferrante M. Nicotine dosimetry and stability in cambridge filter PADs (CFPs) following different smoking regime protocols and storage conditions. *Regul Toxicol Pharmacol.* 2021 Jun;122:104917. doi: 10.1016/j.yrtph.2021.104917. Epub 2021 Mar 18. PMID: 33744373.
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SCIENTIFIC CONGRESSES

1. Speaker: Cytotoxicity evaluation of vanillin in electronic cigarette liquids on human aortic artery endothelial cells. Caruso M. CORESTA SSPT2023 Conference SMOKE SCIENCE and PRODUCT TECHNOLOGY. Cancun, Mexico, 7-12 October 2023
2. Speaker: In Vitro mutagenicity potential of a Pod-Based E-Cigarette Aerosol Compared to Cigarette Smoke: the REPLICA PROJECT. Caruso M. RESEARCH TRACK SESSION IV. "5th Scientific Summit on Tobacco Harm Reduction: Novel Products, Research & Policy". 21-22 September, 2022.
3. Speaker: Comparative assessment of electronic nicotine delivery systems aerosol and cigarette smoke on endothelial cell migration: the REPLICA PROJECT. Caruso M. RESEARCH TRACK SESSION IV. "5th Scientific Summit on Tobacco Harm Reduction: Novel Products, Research & Policy". 21-22 September, 2022.
4. Invited speaker: Electronic nicotine delivery systems exhibit lower toxicity compared to cigarettes. the "REPLICA STUDY GROUP" experience. Caruso M. Thematic category: Toxicology and aerosol chemistry. "4th Scientific Summit on Tobacco Harm Reduction: Novel Products, Research & Policy". 29-30 Settembre, 2021.
5. Oral communication: What is the best approach to assess the vapor-induced cytotoxicity of ENDS? A road map to the destination. Caruso M. Cooperation Centre for Scientific Research Relative to Tobacco (CORESTA) "Smoke-Techno Conference 2021" (Virtual Conference). 18 - 28 Ottobre, 2021
6. Replica Project - Interview: G. Li Volti and M. Caruso - 8th Global Forum on Nicotine 2021 (GFN 2021); Liverpool, 17-18 June 2021 - GFN Fives - Science and innovation section
7. Oral communication: Electronic cigarette liquids inhibit pathogenic bacteria growth in vitro. 6th Global Forum on Nicotine. 17-20 June 2019. Warsaw.
8. Oral communication: Safety and Efficacy Of Subcutaneous Pollen Immunotherapy Administered By Needleless Device In Allergic Rhinitis Adults. Annual Congress of European Academy of Allergy and Clinical Immunology (EAACI). Munich. May 2018.
9. Invited Speaker: Test di attivazione in vitro nel laboratorio di allergologia. 14° Congresso Regionale SiBioc - Sezione Sicilia. "Innovazione in Medicina di Laboratorio". Cefalù - 6 Ottobre 2017
10. Invited Speaker: Nuovi sviluppi in Immunoterapia senza ago. Evento: Meeting scientifico: "La grande sfida". Sponsorizzato da Bial Aristegui Italia. ROMA 06 Ottobre 2016 - MILANO 07 Ottobre 2016.
11. Oral communication: Could Basophil Activation Tests (BATs) have a role in diagnosis of Food Allergies? 10th EuroBAT Meeting - The European Consortium on Application of Flow Cytometry in Allergy; Session: Food Allergy. Rome (Italy) - 12 October 2016
12. Chair: Miscellaneous drug allergy Poster Session - Annual Congress of European Academy of Allergy and Clinical Immunology (EAACI). Barcellona (Spagna) – 8 Giugno 2015
13. Oral communication: Anaphylaxis to Local Anaesthetics: an integrated approach clinical-laboratory. Congress of EAACI 2015 (European Academy of Allergy and Clinical Immunology). Barcelona (Spain) 6-10 June 2015.
14. Oral communication: Investigating the Delayed Adverse Reactions to Non-Steroidal Anti-Inflammatory Drugs by an ex-vivo Stimulation Test. A new safety approach to support the drug allergy diagnosis. Collegium Internationale Allergologicum in Petersberg, Germany, 13-18 September 2014
15. Oral communication: Usefulness of basophil activation markers in the diagnosis of drug hypersensitive reaction to amoxicillin. 8th EuroBAT Meeting - The European Consortium on Application of Flow Cytometry in Allergy. Session: Drugs allergy/mixed topics - Munich, Germany. 12/13 December 2014
16. Invited Speaker: Orticaria cronica autoimmune: un approccio citofluorimetrico come supporto alla diagnosi ed all'inquadramento clinico e terapeutico. Relazione su invito. 10° Congresso Regionale SiBioc - Sezione Sicilia. "Dalla Ricerca Biomedica Alla Medicina Di Laboratorio". Caltanissetta - 25 Settembre 2013
17. Oral communication: Evaluation of drug hypersensitivity: The clinical laboratory as valuable help to make a correct diagnosis. Caruso M – 42° National Congress of Italian Society of Clinical Biochemistry and Molecular Biology (SIBioC) – Rome. 5–8 October 2010.
18. Invited Speaker: Flow2- CAST - Test di citometria a flusso nella diagnosi di allergie. Caruso M. Congresso Nazionale AIPaCMeM (Associazione Italiana di Patologia Clinica e Medicina Molecolare) - Tivoli (Roma) – 12-15 maggio 2009

19. Oral communication: Le lipoproteine a bassa densità ossidate stimolano la migrazione e l'attivazione degli eosinofili. Caruso M, Mastruzzo C, Lupo G, La Rosa C, Pistorio MP, Anfuso CD, Gili E, Trovato Salinaro E, Crimi N, Alberghina M, Vancheri C. Atti del 3° Congresso Nazionale S.I.Ci.C.S. – Palermo, 13-15 Aprile 2005.

SCIENTIFIC SEMINARS

1. The “REPLICA” project: addressing the replication crisis in tobacco harm reduction studies. Center for Biotechnology/Sbarro Institute. Temple University. Hosts: Dr. A. Giordano, Dr. A. Sun. May 2, 2023.
2. The “Replica Study Group” experience: working, harmonizing, facing challenges and growing all together. Center for Biotechnology/Sbarro Institute. Temple University. Philadelphia (USA). Hosts: Dr. A. Giordano, Dr. A. Sun. April 5, 2022.
3. The “REPLICA” project. Towards the standardization and harmonization of experimental protocols in an international consortium. College of Medicine and Health Sciences, Department of Clinical Biochemistry, Sultan Qaboos University. Khodh (Oman). Host: Dr. F. Zadjiali. February 24, 2020.
4. The “REPLICA” project. Towards the standardization and harmonization of experimental protocols in an international consortium. Department of Microbiology and Immunology, Faculty of Medical Sciences, University of Kragujevac (Serbia). Host: Dr. V. Volarevic. February 22, 2020.
5. The “REPLICA” project. Towards the standardization and harmonization of experimental protocols in an international consortium. Department of Pharmacy, University of Patras, Patras (Greece). Host: Dr. K. Poulas. February 18, 2020.
6. “Flow cytometry applied to the clinical laboratory: from hematology to allergology”. School of Medicine. University of Catania. June 14, 2017
7. “Technical applications of the flow cytometry in the clinical and research laboratory”. Master course in Biology. University of Catania, Department of Biology. May 15, 2017.

BOOKS

Eziopatogenesi e diagnostica delle farmaco-reattività (Aetiopathogenesis and diagnostics of drug-reactivity). G. Tringali, C. De Francisci, G Pennisi, M. Caruso. Bonanno Editore, 2006. Italy.

December 20, 2023

Massimo Caruso