

# Curriculum Vitae

**Louro, Maria Henriqueta**

**Gender: Female**

**Nationality:** Portuguese

## **Overall Scientific Expertise:**

I work as research scientist at the Department of Human Genetics of the National Institute of Health Dr. Ricardo Jorge (INSA, Lisbon, Portugal) and as integrated researcher of the Centre for Toxicogenomics and Human Health (ToxOmics, NOVA Medical School, NOVA University of Lisbon). Graduated in Biochemistry (Faculty of Sciences, Lisbon University), I also hold a Ph.D. in Public Health-Environmental and Occupational Health (Nova University of Lisbon) and I am Specialist in Human Genetics (by the Portuguese Ministry of Health). My main field of research/expertise is genetic toxicology and human biomonitoring, including participation in PARC partnership, HBM4EU, NANOREG, NANOgenotox, and as responsible researcher for nationally funded projects on nanosafety, also aimed at AOPs development. Experience in risk assessment of naturally occurring toxicants and their mixtures present in food, namely mycotoxins, and of environmental contaminants occurring in estuarine sediments. As a member of the Working Group on Toxicology of the Scientific Panel on Additives and Products or Substances used in Animal Feed (FEEDAP Panel), and of the WG on Cross-cutting genotoxicity and WG on Cross-cutting Nanotechnologies at the European Food Safety Authority (EFSA), I have experience in regulatory toxicology and I am included in the list of Experts on the Joint FAO/WHO Expert Committee on Food Additives (JECFA). Recently, I was nominated expert for the OECD project Using Adverse Outcome Pathways (AOP) to address combined exposures to chemicals with relevant effect-biomarkers, starting in 2022. <https://orcid.org/0000-0001-9744-7332>

## **Professional Experience**

<b>Years employed from – to</b>	<b>Title of position</b>	<b>Employer – name and location</b>	<b>Areas of professional specialisation</b>
2015-present	Researcher	ToxOmics – Centre for Toxicogenomics and Human Health, NOVA Medical School, NOVA University of Lisbon, Campo dos Mártires da Pátria, 130, 1169-056 Lisboa, Portugal	Genomics, Epigenomics
1997 - present	Research scientist	Department of Human Genetics, Instituto Nacional de Saúde Dr Ricardo Jorge (National Institute of Health Dr Ricardo Jorge, INSA), Av. Padre Cruz, 1649-016 Lisbon, Portugal, <a href="http://www.insa.pt/">http://www.insa.pt/</a>	Toxicology (carcinogenesis, occupational, genotoxicity), Human genetics

## **Educational Background**

<b>Year</b>	<b>Degree awarded</b>	<b>Educational Institution – name and location</b>	<b>Areas of educational specialisation*</b>
2014	Ph.D. in	School for Public Health, Nova University	Environmental and

	Public Health	of Lisbon, Portugal	Occupational Health
2003	Specialist in Human Genetics	Ministry of Health, Portugal	Human genetics
1997	Biochemistry	5-years graduation (Licenciatura) Faculty of Sciences, Lisbon University, Portugal.	Biochemistry

#### **Memberships in Scientific Advisory Bodies/Committees/Panels:**

- Member of the European Food Safety Authority (EFSA) Working Group - WG - SCER Unit - Cross-cutting genotoxicity, since 2023.
- Member of the European Food Safety Authority (EFSA) Working Group - WG - SCER Unit - Cross-cutting nanotechnologies, since 2023.
- Member of Working Group on Toxicology of the Scientific Panel on Additives and Products or Substances used in Animal Feed (FEEDAP Panel), European Food Safety Authority (EFSA), since 2022.
- Nominated expert for the OECD project Using Adverse Outcome Pathways (AOP) to address combined exposures to chemicals with relevant effect-biomarkers.
- Member of the Portuguese ISO/CEN Technical Commission for Nanotechnologies (CT194)

#### **Memberships in Learned Societies:**

- European Environmental Mutagenesis & Genomics Society (EEMGS),
- Portuguese Association for Toxicology (APTOX- Associação Portuguesa de Toxicologia)
- Exposure data production: Human data working group, International Society for exposure science-European (ISES Europe)

#### **Memberships in Editorial Boards:**

- Editorial Board Member of Nanoscience, a specialty of Frontiers in Chemistry, as Review Editor.

#### **List of Publications:**

53 scientific papers in international journals plus 1 edited book and 8 book chapters

(<https://orcid.org/0000-0001-9744-7332>).

List of 10 most representative, peer-reviewed articles:

1. Nakayama SF, St-Amand A, Pollock T, Apel P, Bamai YA, Barr DB, Bessems J, Calafat AM, Castaño A, Covaci A, Duca RC, Faure S, Galea KS, Hays S, Hopf NB, Ito Y, Jeddi MZ, Kolossa-Gehring M, Kumar E, LaKind JS, López ME, Louro H, Macey K, Makris KC, Melnyk L, Murawski A, Naiman J, Nassif J, Noisel N, Poddalgoda D, Quirós-Alcalá L, Rafiee A, Rambaud L, Silva MJ, Ueyama J, Verner MA, Waras MN, Werry K. Interpreting biomonitoring data: Introducing the international human biomonitoring (i-HBM) working group's health-based guidance value (HB2GV) dashboard. *Int J Hyg Environ Health*. 2022 Nov 7; 247:114046. doi: 10.1016/j.ijheh.2022.114046.
2. Louro, H.; Gomes, B.C.; Saber, A.T.; Iamiceli, A.L.; Göen, T.; Jones, K.; Katsonouri, A.; Neophytou, C.M.; Vogel, U.; Ventura, C.; Oberemm, A.; Duca, R.C.; Fernandez, M.F.; Olea, N.; Santonen, T.; Viegas, S.; Silva, M.J. The Use of Human Biomonitoring to Assess Occupational Exposure to PAHs in Europe: A Comprehensive Review. *Toxics* 2022, 10, 480. <https://doi.org/10.3390/toxics10080480>
3. Rolo D, Assunção R, Ventura C, Alvito P, Gonçalves L, Martins C, Bettencourt A, Jordan P, Vital N, Pereira J, Pinto F, Matos P, Silva MJ, Louro H. Adverse Outcome Pathways Associated with

- the Ingestion of Titanium Dioxide Nanoparticles-A Systematic Review. *Nanomaterials* (Basel). 2022 Sep 21;12(19):3275. doi: 10.3390/nano12193275.
4. Tavares, A.M.; Viegas, S.; Louro, H.; Göen, T.; Santonen, T.; Luijten, M.; Kortenkamp, A.; Silva, M.J. Occupational Exposure to Hexavalent Chromium, Nickel and PAHs: A Mixtures Risk Assessment Approach Based on Literature Exposure Data from European Countries. *Toxics* 2022, 10, 431. <https://doi.org/10.3390/toxics10080431>
  5. Tavares, A.; Aimonen, K.; Ndaw, S.; Fučić, A.; Catalán, J.; Duca, R.C.; Godderis, L.; Gomes, B.C.; Janasik, B.; Ladeira, C.; Louro, H.; Namorado, S.; Nieuwenhuyse, A.V.; Norppa, H.; Scheepers, P.T.J.; Ventura, C.; Verdonck, J.; Viegas, S.; Wasowicz, W.; Santonen, T.; Silva, M.J.; on behalf of the HBM4EU Chromates Study Team. HBM4EU Chromates Study—Genotoxicity and Oxidative Stress Biomarkers in Workers Exposed to Hexavalent Chromium. *Toxics* 2022, 10, 483. <https://doi.org/10.3390/toxics10080483>
  6. Santonen T, Porrás SP, Bocca B, Bousoumah R, Duca RC, Galea KS, Godderis L, Göen T, Hardy E, Iavicoli I, Janasik B, Jones K, Leese E, Leso V, Louro H, Majery N, Ndaw S, Pinhal H, Ruggieri F, Silva MJ, van Nieuwenhuyse A, Verdonck J, Viegas S, Wasowicz W, Sepai O, Scheepers PTJ; HBM4EU chromates study team. HBM4EU chromates study - Overall results and recommendations for the biomonitoring of occupational exposure to hexavalent chromium. *Environ Res.* 2022 Mar;204(Pt A):111984. doi: 10.1016/j.envres.2021.111984. Epub 2021 Sep 4.
  7. Zare Jeddi M, Nancy B. Hopf, Henriqueta Louro, Susana Viegas, Karen S. Galea, Robert Pasanen-Kase, Tiina Santonen, Vicente Mustieles, Mariana F. Fernandez, Hans Mol, Jean Philippe Antignac, Arthur David, Stephanie K. Bopp, Hans Verhagen, Robert Barouki, Karine Audouze, Radu-Corneliu Duca, Peter Fantke, Paul Scheepers, Manosij Ghosh, An Van Nieuwenhuyse, Joana Lobo Vicente, Xenia Trier, Loïc Rambaud, Clémence Fillol, Sebastien Denys, André Conrad, Marike Kolossa-Gehring, Alicia Paini, Jon Arnot, Florian Schulze, Kate Jones, Ovnair Sepai, Imran Ali, Lorraine Brennan, Emilio Benfenati, Francesco Cubadda, Peter Kujath, Alison Connolly, Alena Bartonova, Jaroslav Slobodnik, Yuri Bruinen de Bruin, Alex Sanchez-Pla, Martin Rössli, Nicole Probst-Hensch, Tim Gant, Hubert Dirven, Trine Husøy, Cathrine Thomsen, Natalie von Goetz, Jos Bessems. Developing Human Biomonitoring as a 21st Century Toolbox within the European Exposure Science Strategy 2020–2030. *Environment International*. Available online 28 August 2022, 107476. <https://doi.org/10.1016/j.envint.2022.107476>
  8. Vieira A, Vital N, Rolo D, Roque R, Gonçalves LM, Bettencourt A, Silva MJ, Louro H. 2022. Investigation of the genotoxicity of digested titanium dioxide nanomaterials in human intestinal cells. *Food Chem Toxicol.* 161, 112841. doi: 10.1016/j.fct.2022.112841.
  9. Zare Jeddi M, Hopf NB, Viegas S, Price AB, Paini A, van Thriel C, Benfenati E, Ndaw S, Bessems J, Behnisch PA, Leng G, Duca RC, Verhagen H, Cubadda F, Brennan L, Ali I, David A, Mustieles V, Fernandez MF, Louro H, Pasanen-Kase R. Towards a systematic use of effect biomarkers in population and occupational biomonitoring. *Environ Int.* 2021 Jan; 146:106257. doi: 10.1016/j.envint.2020.106257.
  10. Louro, H., Heinälä, M., Bessems, J., Buekers, J., Vermeire, T., Woutersen, M., van Engelen, J., Borges, T., Rousselle, C., Ougier, E., Alvito, P., Martins, C., Assunção, R., Silva, M.J., Pronk, A., Schaddelee-Scholten, B., Gonzalez, M., Alba, M., Castaño, A., Viegas, S., Humar-Juric, T., Kononenko, L., Lampen, A., Vinggaard, A.M., Schoeters, G., Kolossa-Gehring, M., Santonen, T. 2019. Human biomonitoring in Health Risk Assessment in Europe: current practices and recommendations for the future. *International Journal of Hygiene and Environmental Health* 222 (2019) 727–737. <https://doi.org/10.1016/j.ijheh.2019.05.009>