Catarina Alexandra Tavares Correia

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I am a biologist with a PhD in Genetics. I am now working as a molecular geneticist specialist at Germano de Sousa after working 6 years at a startup on personalised and genetically informed medicine, following an eleven-year academic career in human genetics and bioinformatics fields. My extensive technical training in human genetics and genomics, statistics and bioinformatics is complemented with my skills in management and leadership, customer support, business development and sales obtained from my corporate experience.

Education

- **2004-09 –** PhD in Biology - Genetics, Faculdade de Ciências da Universidade de Lisboa (FCUL), Instituto Gulbenkian de Ciência (IGC) and Instituto Nacional de Saúde Doutor Ricardo Jorge (INSA). *Genetic factors in Autism Spectrum Disorders (ASD) and in variability in individual response to risperidone therapy*. Approved with distinction and honour.
- **1998-03 –** First degree in *Biologia Microbiana e Genética*, Faculdade de Ciências da Universidade de Lisboa (Final classification: 18 out of 20).

Experience

- July 2020 –Present **Molecular Geneticist Specialist**, *Centro de Medicina Laboratorial Germano de Sousa*
  - **Interpretation of genetic test results, curation and classification of genetic variants and elaboration of clinical reports;**
  - Collaboration in the **design**, **development, and implementation** of new tests and products;
  - **Customer support to patients and physicians;**
  - Creation of **educational and marketing content** and **scientific education training** targeted to physicians;
  - **Liaison with the medical community** and foster relationships with several stakeholders and KOLs.

- Nov 2018 to Jan 2020 **Head of Genetics Liaison,** *Coimbra Genomics, S.A.*

  Management/Leadership
  - Responsible for the definition of the company's Genetic roadmap/strategy and objectives, and management of the genetics team (3 members);

  Technical/Scientific
  - **Developed several proprietary exome genetic tests** for the Elsie platform and designed **Preventive Medicine products** for **oncology** and newborn areas;
  - **Built an in-house knowledgebase** with data from thousands of disease- associated genetic variants **curated** from scientific publications, disease and population databases;
  - **Reviewed decision support medical reports** produced by Elsie platform, including analysis of genetic variants **clinical interpretation and classification;**
  - Collaborated in the **development, testing and implementation** of the **bioinformatic** analysis **pipeline** for exomic data;
  - Created and continually updated the genetic knowledge supporting material, including **compilation of genetic testing recommendations guidelines** for different medical specialties, including **oncology**;

  Medical Liaison/Customer support
  - Provided **customer support to patients and physicians**, helping in the selection of tests and results interpretation;

- Managed the **educational and marketing content** and provided **scientific education training** targeted to physicians, nurses and sales;
- Acted as **liaison with the medical community** and fostered relationships with several stakeholders and KOLs.

Business development

- Performed analysis of **new business opportunities and partnerships** in the genetic testing market, including analysis and comparison of genetic tests content and performance from different providers;

Commercial/Sales

- Actively participated in **pre-sales product demonstrations, user activation and engagement activities** and post sales costumer success;

- 2016 – Nov 2018 **Head of Genetics and Bioinformatics**, *Coimbra Genomics, S.A.*
- May 2014 – 2016 **Senior Genetic Specialist**, *Coimbra Genomics, S.A.*
- Jul 2010 – May 2014 **Postdoctoral Fellow,** *Instituto Gulbenkian de Ciência (IGC), Instituto Nacional de Saúde Dr. Ricardo Jorge (INSA), and School of Medicine and Medical Science, University College, Dublin*
  - Development of a network-based bioinformatics approach to extract biological insight and predictive power from the data produced in large GWAS studies
- Oct 2008 – Jun 2010 **Project manager and Research Assistant,** *INSA and IGC*
- Oct 2004 –Oct 2008 **PhD student,** *INSA, IGC and Faculdade de Ciências da Universidade de Lisboa (FCUL)*
- Oct 2003 –Aug 2004 **Research Technician,** IGC
- Oct 2002 – Oct2003 **Undergraduate Research Trainee,** IGC

Courses

Find below a list of selected courses. Full list of courses taken available on linkedin (www.linkedin.com/in/catarina-tavares-correia).

- *Personalised Prevention Counsellor (PEPRECO) (30-hour course), Maastricht University (online course)(Dez 2019)*
- *Sales Training (16-hour course) given by Nuno Correia Santos, Biocant Park, Cantanhede (January 2019)*
- *Automated and reproducible analysis of NGS data* (28-hour course), Instituto Gulbenkian de Ciência (Setember 2012)
- *Biostatistical Foundations in Bioinformatics* (28-hour course), Instituto Gulbenkian de Ciência (November 2010)
- *Bioinformatics using Python for Biologists (BPB10* (40-hour course), Instituto Gulbenkian de Ciência (April 2010)
- *Pathway Biology. How to analyse transcriptomics, ChIP-chip/seq and proteomics data.* (15-hour course), Instituto Gulbenkian de Ciência (October 2009)

Awards and Fellowships

- 2012 *NextBIO Travel grant*
- 2010 *Fundação Calouste Gulbenkian Travel grant*
- 2010 *Prémio investigação Clínica* - "Whole-Genome CNV analysis identifies rare *ANXA1* duplications in autism spectrum disorders".

14th meeting of the Portuguese Society of Human Genetics, Coimbra (Sponsored by Alfagene)

- 2009 *PostDoc FCT fellowship SFRH/BPD/ 64281/2009*

- 2006 *Grande Prémio Bial de Medicina 2006 (Honour mention)*
  Team member in project "Autismo em Portugal. Epidemiologia, investigação genética e molecular", led by Dr Vicente
  Bial

- 2006 *Prémio Maria Amélia da Silva de Mello para as Ciências da Saúde*
  Team member in the project "Hyperserotonemia in Autism Spectrum Disorders: Genetic Basis", led by Dr Vicente
  José de Mello Saúde

- 2006 *Best Poster Communication Award* - "A candidate gene strategy to study autism: association studies, endophenotypes and gene interactions"
  Young investigator's day, Instituto Nacional de Saúde Dr. Ricardo Jorge

- 2004 *PhD FCT fellowship SFRH/BD/16907/2004.*

- 2004 *Prémio BES*
  Faculdade de Ciências da Universidade de Lisboa
  Prize with the aim of recognizing the six students with the highest final grade to conclude the first degree in 2002/2003 in FCUL.

- 2003 *PRODEP fellowship, 1/3.2/PRODEP/2002.*

- 1999 *Honour Mention*
  Conselho Geral da Fundação da Faculdade de Ciências da Universidade de Lisboa
  Award for the twenty best students concluding the first year of their First Degree in FCUL (with an average of 16.55 out of 20).

Selected Publications

1. Original articles and reviews

Selected publications amongst the **22 articles** published in international peer reviewed journals (9 as first author), with **over 5000 citations** (h-index: 18) during the academic career (2003-2014) (https://orcid.org/0000-0001-5481-2010). The full list is available here www.linkedin.com/in/catarina-tavares-correia.

1. **Correia C**, Diekmann Y, Vicente AM and Pereira- Leal JB (2014) *Hope for GWAS: Relevant Risk Genes Uncovered from GWAS Statistical Noise.* Int J Mol Sci. 29;15(10):17601-21
2. **Correia C**, Oliveira G, Vicente AM (2014) *Protein Interaction Networks Reveal Novel Autism Risk Genes within GWAS Statistical Noise* PLoS One. 9(11):e112399.
3. Anney R, Klei L, Pinto D, Regan R, Conroy J, Magalhaes TR, **Correia C** et al (2010). *A genome-wide scan for common alleles affecting risk for autism*. Hum Mol Genet;19 (20):4072-82.
4. **Correia C**, Coutinho AM, Silva S, Sousa I, Lourenço L, Almeida J, Lontro R, Lobo C, Miguel T, Gallagher L, Gill M, Ennis S, Oliveira G, Vicente AM (2010). *Increased BDNF levels and NTRK2 gene association suggest a disruption of BDNF/TrkB signaling in autism.*Genes Brain Behav. 9(7):841-8.
5. Pinto D, Pagnamenta AT, Klei L, Anney R, Merico D, Regan R, Conroy J, Magalhaes TR, **Correia C** et al. (2010) *Functional impact of global rare copy number variation in autism spectrum disorders*. Nature. 466(7304):368-72.
6. **Correia C**, Almeida J, Santos P, Sequeira AF, Lobo C, Miguel T, Lontro R, Oliveira G, Vicente AM (2010). *Pharmacogenetics of Risperidone Therapy in Autism: association analysis of eight candidate genes with drug efficacy and adverse drug reactions*. Pharmacogenomics J. 10(5):418-30.

2. Oral communications and posters presented at peer-reviewed scientific meetings

3 oral communications presented in international meetings and 5 in national meetings
25 posters (13 as first authors) presented in national and international meetings

Other qualifications

- **Computer skills**

General computation (Windows, MS Office Linux and UNIX), Scientific Software for genetic, bioinformatics and general statistical analysis (including R package), python programming language (basic)

- **Language skills**

Portuguese (mother tongue), English (fluent)

Lisbon, January 2021

Catarina Correia