



# Hugo Vicente Miranda

 December 31, 1982, Lisbon Portugal

 CEDOC - Chronic Diseases Research Center,  
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 Google Scholar

 **Current Position:** Group Leader

## Education

- January 2010**  
**January 2006** ● **PhD Degree in Biochemistry – Metabolic Regulation | Enzymology group**  
Faculty of Sciences, University of Lisbon (FCUL) (Portugal). Supervised by Carlos Cordeiro and Alexandre Quintas  
**Research project:** *Protein glycation and methylglyoxal metabolism in Parkinson's Disease*
- July 2005**  
**September 2000** ● **Pre-Bologna Licenciante Degree - Biochemistry | Thesis at Enzymology group**  
Faculty of Sciences, University of Lisbon (FCUL) (Portugal). Supervised by Ana Ponces-Freire and Carlos Cordeiro  
**Thesis Research project:** *Methylglyoxal metabolism and protein glycation in Saccharomyces cerevisiae*. **Score:** 17 out of 20 (Thesis score: 20 out of 20)

## Relevant Research Experience

- January 2018**  
**present** ● **Group-leader | DysBrainD – Dysmetabolism in Brain Diseases**  
Chronic Diseases Research Centre (CEDOC), NOVA Medical School, Universidade Nova de Lisboa (Portugal).
- January 2014**  
**Jan 2018** ● **Post-doctoral Researcher | Cell and Molecular Neuroscience Lab**  
Chronic Diseases Research Centre (CEDOC), NOVA Medical School, Universidade Nova de Lisboa (Portugal). Supervised by Tiago F Outeiro  
**Research project:** *Targeting the glycation defenses as a protective strategy for Parkinson's disease.*
- February 2010**  
**Dec 2017** ● **Post-doctoral Researcher | Cell and Molecular Neuroscience Lab; L Lopes Lab**  
Instituto de Medicina Molecular (iMM), Faculdade de Medicina de Lisboa, Universidade de Lisboa (Portugal). Supervised by Tiago F Outeiro and Luisa Lopes  
**Research projects:** *Modulation of alpha-synuclein aggregation and toxicity: protective strategies for Parkinson's disease; Targeting the glycation defenses as a protective strategy for Parkinson's disease.*

## Professional Activities

**Review Editor** in Frontiers for the area of Neurodegeneration. Journals covered: Frontiers in Neuroscience; Frontiers in Neurology; Frontiers in Psychiatry; <http://home.frontiersin.org>

## Present Research Interest

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<b>Neurodegeneration</b>	Parkinson's disease (PD), Huntington's disease, Alzheimer's disease
<b>Aging</b>	Role of Sirtuins in neurodegenerative diseases
<b>Metabolic Diseases</b>	Role of hyperglycemia (Diabetes) in Parkinson's disease
<b>Therapeutics</b>	Glycation defenses as therapeutic tools for Neurodegenerative diseases
<b>Biomarkers</b>	Identification of Parkinson's disease blood biomarkers
<b>Protein quality control</b>	Ubiquitin proteasome system, Autophagy lysosome system, HSPs

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## Advanced Training

- 2010** Quantitative Light Microscopy in Living Cells by Harvard Medical School Portugal Program (5-day Workshop).
- 2008** Advanced training in FTMS-ICR by BRUKER DALTONICS

## Funded Projects and Awards

- 2018 - 2019** Sociedade Portuguesa de Diabetologia, **Principal Investigator**, €5 000,00  
*Sugar stress in the brain*
- 2016 - 2019** PTDC/NEU-OSD/5644/2014 Vicente Miranda, **Principal Investigator**, €199 961,00  
*Targeting the glycation defenses as a protective strategy for Parkinson's disease*
- 2018 - 2019** iNOVA4Health, Vicente Miranda, **Principal Investigator**, €70 000,00  
*Sugar stress in the brain* (Ricardo Gomes, iBET and Tiago Outeiro, CEDOC are co-PIs)
- 2014** **Poster Award** at 8th EHDN Plenary Meeting (Barcelona)
- 2012 – 2014** EXPL/NEU-OSD/0606/2012 Vicente Miranda (**Principal Investigator**), €50 000,00  
*Alpha-synuclein as a blood biomarker for Parkinson's disease*
- 2009** **Award for best oral presentation** at III IMM PhD Student Meeting, Instituto de Medicina Molecular, Faculty of Medicine, University of Lisbon, Portugal

## Experience as Scientific Adviser

### PhD Student Supervisor, Tutor

- 2018 - 2022** Ana Chegão, CEDOC, NOVA Medical School | Faculdade de Ciências Médicas, Universidade NOVA de Lisboa. ProRegeM PhD programme. Supervisor
- 2012 - 2014** Leonor Fleming (Faculty of Medicine, University of Lisbon, PhD): *Deciphering the molecular role of DJ-1 in the etiology of Parkinson's and Huntingtons's disease. (tutor)*
- 2012 - 2014** Elisa Basso (Faculty of Medicine, University of Lisbon, PhD): *The role of alpha-synuclein phosphorylation in synucleinopathies. (tutor)*

### Master Thesis

- 2016 - 2017** Diploma/Master thesis – Bárbara Gomes: *Targeting the glycation defenses as a protective strategy for Parkinson's disease* (Scored 20 out of 20)
- 2013 - 2015** Diploma/Master thesis - Rafaela Cássio: *Alpha-synuclein as a blood biomarker for Parkinson's disease* (Scored 19 out of 20).
- 2012 - 2013** Diploma/Master thesis - Márcia Oliveira: *Modulation of alpha-synuclein aggregation and toxicity* (Scored 18 out of 20).

### Current Research Fellows Supervision:


- 2018 - 2019** Research fellowship of Bárbara Gomes: Sugar Stress in the Brain (DAI/2017/61).







## Peer-reviewed Publications

**Total Articles: 24** (21 without proceedings); **Accumulated IF: 130** (116 without proceedings), **average IF: 6**; **H-index: 11** (Google Scholar); **Citations: 516 citations** (Google Scholar); 316 citations (ISI); 369 citations (Scopus)

**11 papers since 2015 (IF ~ 7.3; 3 papers in IF ≥ 10); 5 as First and 1 as Corresponding author**

### Selected Publications

- 2017** **Vicente Miranda H, ...**, Outeiro TF. *Glycation potentiates  $\alpha$ -synuclein-associated neurodegeneration in synucleinopathies. Brain.* 140 (5): 1399-1419.
-  IF 2016: **10.3**; last 5-year – **10.8** (ISI); **3<sup>rd</sup> Best** in 342 – Neurology (clinical) (SCImago 2016)

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- 2017**  de Oliveira RM\*, **Vicente Miranda H\***, ..., Outeiro TF. *The mechanism of Sirtuin 2-mediated exacerbation of alpha-synuclein toxicity in models of Parkinson's disease*. **PLoS Biology**, Mar 3;15(3):e2000374. \* **equal contribution**  
IF 2016: **9.8**; last 5-year – **10.2** (ISI); **2<sup>nd</sup> Best** in 217 – Agric and Biol Sciences (miscell) (SCImago 2016)
- 2017**  **Vicente Miranda H\***, ..., Outeiro TF\*. *Posttranslational modifications of blood-derived alpha-synuclein as biochemical markers for Parkinson's disease*. **Scientific Reports**, Oct 20, 7:13713. \* **corresponding author**  
IF 2016: **4.3**; last 5-year – **4.9** (ISI); **5<sup>th</sup> Best** in 112 – Multidisciplinary (SCImago 2016)
- 2017**  Ferreira D, Temido-Ferreira M, **Vicente Miranda H**, ..., Outeiro TF. *α-Synuclein interacts with PrPC to induce cognitive impairment through mGluR5 and NMDAR2B*. **Nature Neuroscience**, Nov, 20(11):1569-1579.  
IF 2016: **17.8**; last 5-year – **17.4** (ISI); **2<sup>nd</sup> Best** in 136 – Neuroscience (miscellaneous) (SCImago-2016)
- 2016**  **Vicente Miranda H**, ..., Outeiro TF. *Glycation potentiates neurodegeneration in models of Huntington's disease*. **Scientific Reports**. Nov 18; 6:36798.  
IF 2016: **4.3**; last 5-year – **4.9** (ISI); **5<sup>th</sup> Best** in 112 – Multidisciplinary (SCImago 2016)
- 2016**  **Vicente Miranda H**, El-Agnaf OM, Outeiro TF. *Glycation in Parkinson's disease and Alzheimer's disease*. **Movement Disorders**. Jun; 31(6):782-90.  
IF 2016 – **7.1**; last 5-year – 6.5 (ISI); **8<sup>th</sup> Best** in 147 – Medicine (Neurology) (SCImago 2016)
- 2015**  Ferreira DG, Batalha VL, **Vicente Miranda H**, ..., Lopes LV. *Adenosine A2A receptors modulate alpha-synuclein aggregation and toxicity*. **Cerebral Cortex**. Jan (27): 718-730.  
IF 2015 - **8.3**; last 5-year – 6.9 (ISI); **3<sup>rd</sup> Best** in 86 – Cell and Molecular Neuroscience (SCImago 2015)
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### Selected Communications

- 2017** **Vicente Miranda H**, Outeiro TF, *Sour side of sugars: Glycation in Huntington's disease*. Jornadas Lusófonas de Nutrição, Universidade Lusófona, Lisboa, Portugal. **(Talk)**
- 2017** **Vicente Miranda H\***, ..., Outeiro TF\*. *α-synuclein posttranslational modifications as blood biomarkers for Parkinson's disease*. ADPD, Mar 28 - Apr 3, **Vienna, Austria**.  
\***co-corresponding authors (Poster)**
- 2015** **Vicente Miranda H**, ..., Outeiro TF. *Glycation modulates huntingtin aggregation and toxicity*. EHDN Site Investigator Meeting, **Madrid, Spain**. **(Talk)**
- 2014** **Vicente Miranda H**, ..., Outeiro TF. *Glycation Modulates Huntingtin Aggregation and Toxicity*. EHDN Plenary meeting, **Barcelona, Spain**. **Best Poster Prize**
- 2013** **Vicente Miranda H**, Outeiro TF. *Deciphering the molecular effects of alpha-synuclein post-translational modifications*. 7th Framework Programme for RTD - Grant Agreement HEALTH-2009-241791, MEFOPA, **Rome, Italy**. **(Talk)**
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### Lecture Activities

- 2017** Lecture on Parkinson's disease in the Biomedicine PhD Program, directed by Professor Odete Cruz e Silva, at Universidade de Aveiro.
- 2013** Lectures in CAML Advanced Courses in the "Advanced Course on protein expression and purification: tips and tricks" organized by Francisco Enguita, at IMM, FMUL, Portugal
- 2009** Lectures of Biochemistry for the first year of the degree in Criminal and Forensic Sciences at Instituto Superior de Ciências da Saúde Egas Moniz
- 2004-2006** Theoretical and practical Lectures of: Computational Simulation; Experimental Biochemistry IV and Enzymology of the degree in Biochemistry at FCUL
- 2004-2006** Theoretical and practical Lectures of Biochemistry I of the degree in Pharmaceutical sciences at Instituto Superior de Ciências da Saúde Egas Moniz
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### Meetings Organization

- 2015** 2<sup>nd</sup> inter-institutional post-doctoral retreat, Setubal (more than 120 participants). Joint organization by IMM, IGC, ITQB, iBET and Champalimaud
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