

# Guadalupe Gómez Melis

CV-Sept2020

---

## Education

- May 1986 **Ph. D. in Statistics**, *Columbia University*, New York, USA.
- May 1983 **Master of Arts in Statistics**, *Columbia University*, New York, USA.
- June 1980 **Bachelor in Mathematics (*Grado de Licenciatura*)**, *Universitat de Barcelona (UB)*.

---

## Academic Appointments

- Oct 2005– Full Professor (Catedràtica d'Universitat). Departament of Statistics and Operations Research (DEIO). *Universitat Politècnica de Catalunya-BarcelonaTech (UPC)*
- Jan-Feb 2020 Research Collaborator. Oxford University Clinical Research Unit. Ho Chi Minh City, Vietnam.
- Oct-Nov 2019 Research Collaborator. Departament Biostatistics. MD Anderson Cancer Center. The University of Texas, Houston (USA).
- 1989–2008 Several Visiting Scientist Appointments. Departament of Bioestadistics. School of Public Health. Harvard University, Boston (USA)
- 1987–2005 Associate Professor (Professora Titular d'Universitat). DEIO, UPC.
- 1986–1987 Assistant Professor. Statistics Departament. Ohio State University, Columbus, Ohio (USA).
- 1983–1986 Graduate Research Assistant. Statistics/Biostatistics Dept. Columbia University, NY (USA).
- 1979–82 Teaching Assistant (Professora Ajudant) Dept. Estadística, Facultat Matemàtiques, UB.

---

## Service to the University and to Professional societies (selected)

- 2020- Vocal PDI-UPC del Comitè d'Ètica de la UPC
- 2020- Miembro Comité de Expertos de *Acción Matemática contra el coronavirus* del CEMat
- 2019- Presidenta del Consell Català d'Estadística
- 2000-03, 2019-23 Council Elected Member of International Biometric Society (IBS)
- 2019- Elected European Representative of Caucus for Women in Statistics
- 2016-19 Bioinformatics Joint Doctorate (UAB, UPC, U Lleida, U Girona, U Vic, UOC). Chair UPC
- 2012-15 ViceDegana-Coordinadora del Màster en Estadística i Investigació Operativa (MESIO UPC-UB) (2006-15)
- 2012-14 Presidenta de la Societat Catalana d'Estadística. Founding member
- 2007-08 VicePresidenta de Comissió de Selecció i Evaluació del Personal Docent i Investigador (UPC). Membre electe (2003-08)
- 1999-2000 Presidenta de la Sociedad Española de Biometria, Spanish Region IBS
- 2003- Executive Editor SORT (Statistics and Operations Research Transactions)
- 2003-08 Coordinadora Programa de Doctorat *Aplicacions Tècniques i Informàtiques de l'Estadística, la Investigació Operativa i la Optimització* (UPC)

---

## Research Identifiers and interests

- UPC Production <https://futur.upc.edu/GuadalupeGomezMelis>
- Research Group GRBIO <https://grbio.upc.edu/en>
- Network Group BIOSTATNET <https://www.biostatnet.com>
- ORCID 0000-0003-4252-4884
- Research Interests: Survival Analysis. Clinical Trials. Complex censoring patterns. Longitudinal Data Analysis. Joint models. Composite endpoints. Interval Censoring. Statistics for AIDS Research

---

## PhD Students

- Marta Bofill Roig. *Statistical methods and software for clinical trials with binary and survival endpoints* Expected Dec 2020
- Yovaninna Alarcón Soto. *Data Science in HIV. Statistical approaches for therapeutic HIV vaccine data*. Co-adv: K. Langohr (UPC). Expected Dec 2020
- Melissa Sharp. *The use of reporting guidelines as an educational intervention for teaching research methods and writing* Co-adv: D. Hren (Univ. Split). May 2020.
- Moisés Gómez Mateu. *Composite endpoints in clinical trials. Computational tools, practical guidelines and methodological extensions*. Co-adv: U. Dafni (Athens U.) June 2016.
- Núria Pérez Álvarez. *Economic evaluation in health research: cohort simulation and applications*. Co-adv: R. Paredes (IRSI-Caixa and UAB). July 2014.
- Lucas López Segovia. *Survival Data Analysis with Heavy-Censoring and Long-Term Survivors*. Co-adv: A. Espinal (UAB). June 2014.
- Jaime Abel Huertas. *Joint Modeling of Two Sequential Times to Event With Longitudinal Information*. Co-adv: C. Serrat (UPC). November 2011.
- Rosa Sobradelo Pérez. *Statistical methods applied to volcanology and volcanic hazard assessment*. Co-adv: J. Martí (Inst. Earth Sciences Jaume Almera, CSIC). July 2011.
- Núria Porta Bleda. *Interval censored semicompeting risks data: a novel approach for modelling bladder cancer*. Co-adv: M.L. Calle (U. Vic). July 2010.
- Ramon Oller i Piqué. *Survival analysis issues with interval censored data*. European Doctorate. June 2006.
- Klaus Langohr. *Regression Models with an Interval-Censored Covariate*. June 2004.
- Rebekka Topp. *Regression and Residual Analysis with Interval-Censored Data*. Co-adv: S. Schach (University Dortmund, Germany). July 2002.
- Carles Serrat Piè. *Study and Validation of Data Structures with Missing Values. Application to Survival Analysis*. May 2001.
- Maria Luz Calle Rosingana. *The Analysis of Interval-Censored Survival Data. From a Nonparametric Perspective to a Nonparametric Bayesian Approach*. February 1997.

---

## Principal Investigator in Selected Grants since 2010

- PID2019-104830RB-I00 (2020–24): *Statistical Methodologies for Clinical and Omics Data and their applications in Health Sciences*. Co-PI: A. Sánchez (UB). Ministerio de Ciencia e Innovación (MCIN). Funding: 160.809€
- 2017 SGR 622 (2017–20): *GRBIO: Biostatistics and Bioinformatics*. Dept. d'Economia i Coneixement. Generalitat de Catalunya (GenCAT). Funding: 20.000€
- MTM2017-90568-REDT (2018–20): *Biostatnet: Potenciando la excelencia investigadora nacional e internacional en Bioestadística*. Ministerio de Economía y Competitividad. PI of Node Catalunya-BIO. PI coordinator: C. Cadarso. Funding: 12.000€
- MTM2015-64465-C2-1-R (2016-19): *Statistical methods for clinical trials, complex censoring schemes and integrative omics data analysis*. MCIN. Funding: 211.100€
- 2014 SGR 464 (2014–16): *GRBIO: Biostatistics and Bioinformatics*. Dept. d'Economia i Coneixement. GenCAT. Funding: 63.000€
- MTM2012-38067-C02-00 (2013–15): *Inference for survival analysis and statistical genetics*. Co-PI: M. Calle (UVic). MCIN. Funding: 110.715€
- MTM2010-09213-E (2011–12): *BIOSTATNET (Spanish network of Biostatistics)*. PI of Node Catalunya-BIO. PI coordinator: C. Cadarso. MCIN
- CERMET (2009-11): *Ús de dades de cohorts per tal de identificar factors genètics, immunològics i virològics associats amb el control natural del HIV. Aplicació al disseny d'una vacuna per la SIDA.* Co-PI: C. Brander (ICREA Professor). FME, UPC. Funding: 6148€

---

## Selected Publications (from 2000)

---

- [1] R. Oller and **G. Gómez Melis**. A nonparametric test for the association between longitudinal covariates and censored survival data. *Biostatistics*, in press, 2020.
- [2] D. Pak, K. Langohr, J. Ning, J. Cortés Martínez, **G. Gómez Melis**, and Y. Shen. Modeling the coronavirus disease 2019 incubation period: Impact on quarantine policy. *Mathematics*, in press, 2020.
- [3] Y. Alarcón-Soto, K. Langohr, C. Fehér, F. García, and **G. Gómez Melis**. Multiple imputation approach for interval-censored time to HIV RNA viral rebound within a mixed effects Cox model. *Biometrical Journal*, 61(2):299–318, 2019.
- [4] M. Bofill Roig and **G. Gómez Melis**. A new approach for sizing trials with composite binary endpoints using anticipated marginal values and accounting for the correlation between components. *Statistics in Medicine*, 38:1935–1956, 2019.
- [5] Bofill Roig M. and **G. Gómez Melis**. Selection of composite binary endpoints in clinical trials. *Biometrical Journal*, 60(2):246–261, 2018.
- [6] E. Negredo, K. Langohr, A. Bonjoch, N. Pérez-Alvárez, C. Estany, J. Puig, J. Rosales, P. Echeverría, B. Clotet, and **G. Gómez Melis**. High risk and probability of progression to osteoporosis at 10 years in HIV-infected individuals: The role of PIs. *Journal of Antimicrobial Chemotherapy*, 73(9):2452–2459, 2018.
- [7] J.R. Marsal, I. Ferreira González, S. Bertrán, A. Ribera, G. Permanyer-Miralda, D. Garcia-Dorado, and **G. Gómez Melis**. The use of a binary composite endpoint and sample size requirement: influence of endpoints overlap. *American Journal of Epidemiology*, 185(9):832–841, Apr 2017.
- [8] C. Armero, C. Forné, M. Rué, A. Forte, H. Perpiñán, **G. Gómez Melis**, and M. Bare. Bayesian joint ordinal and survival modeling for breast cancer risk assessment. *Statistics in Medicine*, 35(28):5267–5282, Dec 2016.
- [9] **G. Gómez Melis**, M. Gómez, and U. Dafni. Informed choice of composite end points in cardiovascular trials. *Circulation-Cardiovascular Quality and Outcomes*, 7(1):170–178, Jan 2014.
- [10] **G. Gómez Melis** and S. Lagakos. Statistical considerations when using a composite endpoint for comparing treatment groups. *Statistics in Medicine*, 32(5):719–738, Jan 2013.
- [11] R. Oller and **G. Gómez Melis**. A generalized Fleming and Harrington’s class of tests for interval-censored data. *Canadian Journal of Statistics. Revue Canadienne de Statistique*, 40(3):501–516, Sep 2012.
- [12] R. Sobradelo, J. Martí, A. Mendoza-Rosas, and **G. Gómez Melis**. Volcanic hazard assessment for the Canary Islands (Spain) using extreme value theory. *Natural hazards and earth system sciences*, 11(10):2741–2753, Jan 2011.
- [13] O. Julià De Ferran and **G. Gómez Melis**. Simultaneous marginal survival estimators when doubly censored data is present. *Lifetime Data Analysis*, 17(3):347–372, Oct 2010.
- [14] R. Oller, **G. Gómez Melis**, and M. Calle. Interval censoring: identifiability and the constant sum property. *Biometrika*, 94(1):61–70, Jan 2007.
- [15] L. Ruiz, Roger Paredes Deirós, **G. Gómez Melis**, J. Romeu, P. Domingo, N. Pérez-Alvarez, N. Perez, G. Tambussi, J.M. Llibre, J. Martínez-Picado, F. Vidal, C.R. Fumaz, B. Clotet, and S. Tibet. Antiretroviral therapy interruption guided by CD4 cell counts and plasma HIV-1 RNA levels in chronically HIV-1-infected patients. *AIDS*, 21(2):169–178, Jan 2007.
- [16] **G. Gómez Melis**, A. Espinal, and S. W. Lagakos. Inference for a linear regression model with an interval-censored covariate. *Statistics in Medicine*, 22(3):409–425, Jan 2003.