

**Present position:**

**Date of Birth:** 9 May 1965

ICREA Research Professor

Institut de Ciència i Tecnologia Ambientals (ICTA)

Professor Associat , Departament de Geografia

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**EDUCATION**

*University degrees*

1983-1990.- Chemical Engineer, specialisation in Analytical Chemistry. Institut Químic de Sarrià, Barcelona, Catalonia, Spain. 1988-1990.- Final year project of Engineering degree (M.Sc. equivalent): "Analysis of organic air pollutants in urban and rural air". Department of Environmental Chemistry, Centre d'Investigació i Desenvolupament-CSIC, Barcelona. Supervisor: Prof. J. Grimalt. Mark: 100%.

1990-1994.- Ph.D. thesis, Organic Geochemistry Unit, School of chemistry, University of Bristol, UK: "Long-chain alkenone and alkyl alkenoate, and total pigment abundances as climatic proxy-indicators in the Northeastern Atlantic: analytical methods, calibration and stratigraphy". Supervisors: Prof. Geoffrey Eglinton (Bristol) and Prof. Joan Grimalt (Barcelona).

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**PREVIOUS EMPLOYMENT**

1990-1993.- Research Assistant, Organic Geochemistry Unit, University of Bristol, UK. Funded by EEC-EPOCH 0004 programme: "Global changes over the last 30,000 years". Principal Investigator: Prof. Geoffrey Eglinton.

1993-1994.- Research Assistant, Organic Geochemistry Unit, University of Bristol, UK. Funded by EEC-ENVIRONMENT programme: "Global changes over the last 250,000 years". Principal Investigator: Prof. Geoffrey Eglinton.

1994-1996.- Post-doctoral Research Associate, Organic Geochemistry Unit, University of Bristol, UK. Funded by NERC: "Redox conditions in palaeowater bodies, evidence for photic zone anoxia from diagenetic

porphyrin products of photosynthetic bacterial pigments". Principal Investigators: Prof. James R. Maxwell (Bristol) and Dr Hugh Jenkyns (Oxford).

1996-1999.- NERC Research Fellowship, University of Newcastle upon Tyne, UK.

1999- 2001. Lecturer in Physical Geography. Department of Geography, University of Durham, UK.

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***MORE RELEVANT PUBLICATIONS (WITH EMPHASIS IN THE LAST 10 YEARS)***

EGLINTON G., BRADSHAW S.A., ROSELL A., SARNTHEIN M., PFLAUMANN U. & TIEDEMANN R., 1992.- Molecular record of secular sea surface temperature changes on 100-year timescales for glacial terminations I, II and IV. *Nature*, 356: 423-426.

ZHAO M., ROSELL A. & EGLINTON G., 1993.- Comparison of two  $UK_{37}$  sea surface temperature records for the last climatic cycle at ODP Site 658 from the sub-tropical Northeast Atlantic. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 103: 57-65.

ROSELL-MELÉ A., CARTER J. & EGLINTON G., 1994.- Survey of distribution of long-chain alkenones and alkyl alkenoates in marine surface sediments from the North East Atlantic. *Organic Geochemistry*, 22: 501-509.

ROSELL-MELÉ A., CARTER J.F., PARRY A.T. & EGLINTON G., 1995.- Novel procedure for the determination of the  $UK_{37}$  index in sediment samples. *Analytical Chemistry*, 67: 1283-1289.

SUMERHAYES C.P., KROON D., ROSELL-MELÉ A., JORDAN R.W., SCHRADER H.J., HEARN R., VILLANUEVA J., GRIMALT J.O. & EGLINTON G., 1995.- Variability in the Benguela Current upwelling system over the past 70,000 years. *Progress in Oceanography*, 35: 207-251.

ROSELL-MELÉ A., EGLINTON G., PFLAUMANN U. & SARNTHEIN M., 1995.- Atlantic core-top calibration of the  $UK_{37}$  index as sea-surface palaeotemperature indicator. *Geochimica, Cosmochimica Acta.*, 59: 3099-3107.

ROSELL-MELÉ A. & MAXWELL J. R., 1996.- Rapid Characterization of Metallo Porphyrin Classes in Natural Extracts by Gel Permeation Chromatography/Atmospheric Pressure Chemical Ionisation/Mass Spectrometry. *Rapid Communications in Mass Spectrometry*, 10: 20-213.

ROSELL-MELÉ A., CARTER J. F. & MAXWELL J. R., 1996.- High Performance Liquid Chromatography-Mass Spectrometry of Porphyrins using an Atmospheric Pressure Interface. *Journal of the American Society for Mass Spectrometry*. 7: 965-97

HARRIS P. G., ZHAO M., ROSELL-MELÉ A., TIEDEMANN R., SARNTHEIN M. & MAXWELL J. R., 1996.- Chlorin accumulation rate as a proxy for Quaternary marine primary productivity. *Nature*, 383: 63-65.

ROSELL-MELÉ A. & Koç N., 1997.- Palaeoclimatic significance of the stratigraphic occurrence of photosynthetic biomarker pigments in the Nordic seas. *Geology*. 25: 49-52

- ROSELL-MELÉ A., MASLIN M.A., SCHAEFFER P. & MAXWELL J. R., 1997.- The 'Heinrich' events: the biomarker evidence. *Geochimica Cosmochimica Acta* 61: 1671-1678.
- SONZOGNI C., BARD E., ROSTEK F., DOLLFUS D., ROSELL-MELÉ A. & EGLINTON G., 1997.- Temperature and salinity effects on alkenone ratios measured in surface sediments from the Indian Ocean. *Quaternary Research* 47: 344-355.
- SONZOGNI C., BARD E., ROSTEK F., LAFONT R., ROSELL-MELÉ A. & EGLINTON G., 1997.- Core-top calibration of the alkenone index versus sea surface temperature in the Indian Ocean. *Deep-Sea Research II*, 44: 1445-1460.
- MÜLLER, P. J., KIRST G., RUHLAND G., VON STORCH I. & ROSELL-MELÉ A., 1998.- Calibration of the alkenone paleotemperature index  $U^{K_{37}}$  based on core-tops from the eastern South Atlantic and the global ocean (60°N-60°S), *Geochim. Cosmochim. Acta*, 62: 1757-1772.
- ROSELL-MELÉ A., 1998.- Inter-hemispheric appraisal of the value of alkenone indices as temperature and salinity proxies in high latitude locations. *Paleoceanography*, 13: 694-703.
- ROSELL-MELÉ A., WEINELT M., KOÇ N., JANSEN E. & SARNTHEIN M., 1998.- Variability of the Arctic front during the last climatic cycle: application of a novel molecular proxy. *Terra Nova*, 10: 86-89.
- ROSELL-MELÉ A., CARTER J. F. & MAXWELL J. R., 1999.- Liquid Chromatography-Tandem Mass Spectrometry of Free Base Alkyl Porphyrins for the Characterization of the Macrocyclic Substituents in components of complex mixtures. *Rapid Communications in Mass Spectrometry*, 13: 568-573.
- COMES P. & ROSELL-MELÉ A., 1999.- Modelling of the effect of chromatographic resolution on the determination of the  $U^{K_{37}}$  index. *Journal of Chromatographic Science*, 37: 245-250.
- ROSELL-MELÉ A. & COMES P., 1999. - Evidence for a warm last glacial maximum in the Nordic Seas, or an example of shortcomings in  $U^{K_{37}}$  and  $U^{K_{37}}$  to estimate low sea surface temperature?. *Paleoceanography*. 14: 770-776.
- ROSELL-MELÉ A., COMES P., MÜLLER P. & ZIVERI P., 2000 - Alkenone fluxes and anomalous  $U^{K_{37}}$  values during 1989-1990 in the Northeast Atlantic (48°N 21°W). *Marine Chemistry*, 71: 251-264.
- MARLOW J.R., LANGE C., WEFER G. & ROSELL-MELÉ A., 2000 - Upwelling intensification as part of the Pliocene-Pleistocene climate transition. *Science*, 290: 2288-2291.
- PRAHL F., HERBERT T., BRASELL S., OHKOUCHI N., PAGANI M., ROSELL-MELE A., REPETA D. & SIKES E., 2000- Status of Alkenone Paleothermometer Calibration. *Geochemistry, Geophysics, Geosystems* 1:, Paper number 2000GC000058, [<http://146.201.254.53/>]
- ROSELL-MELÉ A., 2001.- Invited book Chapter: Examination of the Use of Biomarker Proxies for the Reconstruction of Paleoceanographic Conditions in the Northern North Atlantic. In *The Northern North Atlantic: A Changing Environment*, edited by P. Schäfer, W. Ritzrau, M. Schlüter, and J. Thiede, Springer, Berlin, p. 353-363.

- MARLOW J.R., FARRIMOND P. & ROSELL-MELÉ A., 2001.- Analysis of Lipid Biomarkers in Sediments from the Benguela Current Coastal Upwelling System (Site 1084). In Wefer, G., Berger, W.H., and Richter, C. et al., Proc. ODP, Sci. 175: Results, College Station, TX (Ocean Drilling Program). [[http://www-odp.tamu.edu/publications/175\\_SR/175sr.htm](http://www-odp.tamu.edu/publications/175_SR/175sr.htm)]
- DURHAM E.L., MASLIN M.A., PLATZMAN E., ROSELL-MELÉ A., MARLOW J.R., MATTTEY D., BURNS S.J. AND THE ODP LEG 175 SHIPBOARD SCIENTIFIC PARTY, 2001.- Reconstructing the climatic history of the western coast of Africa over the past 1.5 million years. A comparison of proxy records from the Congo Basin and the Walvis Rodge and the search for the Mid-Pleistocene Revolution. In Wefer, G., Berger, W.H., and Richter, C. et al., Proc. ODP, Sci. 175: Results, College Station, TX (Ocean Drilling Program). [[http://www-odp.tamu.edu/publications/175\\_SR/175sr.htm](http://www-odp.tamu.edu/publications/175_SR/175sr.htm)].
- ETTWEIN V.J., STICKLEY C.E., MASLIN M.A., LAURIE E.R., ROSELL-MELÉ A., VIDAL L., & BROWNLESS M., 2001. Fluctuations in Productivity and Upwelling Intensity at Site 1083 during the Intensification of the Northern Hemisphere Glaciation (2.40–2.65 Ma). In Wefer, G., Berger, W.H., and Richter, C. et al., Proc. ODP, Sci. 175: Results, College Station, TX (Ocean Drilling Program). [[http://www-odp.tamu.edu/publications/175\\_SR/175sr.htm](http://www-odp.tamu.edu/publications/175_SR/175sr.htm)].
- ROSELL-MELÉ, E. BARD, J. GRIMALT, I. HARRISON, I. BOULOUBASSI, P. COMES, K.-C. EMEIS, B. EPSTEIN, K. FAHL, P. FARRIMOND, A. FLUEGGE, K. FREEMAN, M. GOÑI, U. GÜNTNER, D. HARTZ, S. HELLEBUST, T. HERBERT, M. IKEHARA, R. ISHIWATARI, K. KAWAMURA, F. KENIG, J. DE LEEUW, S. LEHMAN, P. MÜLLER, N. OHKOUCHI, R. D. PANCOST, F. PRAHL, J. QUINN, J.-F. RONTANI, F. ROSTEK, J. RULLKOTTER, J. SACHS, D. SANDERS, K. SAWADA, R. SCHNEIDER, D. SCHULZ-BULL, E. SIKES, Y. TERNOIS, G. VERSTEEGH, J. VOLKMAN, AND S. WAKEHAM, 2001.- Precision of the current methods to measure alkenone relative ( $U^{K_{37}}$ ) and absolute abundance in sediments: results of an inter-laboratory comparison study. *Geochemistry, Geophysics, Geosystems* 2: Paper number 2000GC000141, [<http://146.201.254.53/>].
- ROSELL-MELÉ A., JANSEN E. & WEINELT M., 2002.- Appraisal of a molecular approach to infer variations in surface ocean freshwater inputs into the North Atlantic during the last glacial. *Global and Planetary Change* 34: 143-152.
- Ó COFAIGH C., TAYLOR J., DOWDESWELL J.A., ROSELL-MELÉ A., KENYON N.H., MIENERT J. & EVANS J., 2002.- Geological evidence for sediment reworking in the Norwegian-Greenland Sea and its palaeoceanographic implications. Geological Society of London, Special publication on "Glacier-influenced sedimentation on high-latitude continental margins" London.
- ROSELL-MELÉ A., 2003.- The use of biomarkers as climate proxies. In *Global Change in the Holocene*, edited by A. Mackay, R.W. Battarbee, J. Birks and F. Oldfield. Arnold, London. Invited Chapter, pp. 358-372.
- ROSELL-MELÉ A., & KORNILOVA O, 2003.- Application of microwave-assisted extraction to the analysis of biomarker climate proxies in marine sediments, *Organic Geochemistry*, 34: 1517-1523.

- WEINELT M., ROSELL A., PFLAUMANN U., SARNTHEIN M. & KIEFER T., 2003.- Zur Rolle der Produktivität im Nordostatlantik bei abrupten Klimaänderungen in den letzten 80,000 Jahren. *Z. dt. Geol. Ges.*, 154: 47-66.
- ROSELL-MELÉ A., BARD E., EMEIS K.C., GRIEGER B, HEWITT C, MULLER P.J., AND SCHNEIDER R.R., 2004. - Sea surface temperature anomalies in the oceans at the LGM estimated from the alkenone-UK37' index: comparison with GCMs. *Geophys. Res. Lett.*, 31: Art. No. L03208.
- BENDLE J AND ROSELL-MELÉ A., 2004.- Distributions of UK37 and UK37' in the surface waters and sediments of the Nordic Seas: implications for paleoceanography. *Geochemistry, Geophysics, Geosystems.*, 5: Art. No. Q11013.
- HAUG G.H., GANOPOLSKI A., SIGMAN D.M., ROSELL-MELE A., SWANN G.E.A., TIEDEMANN R., JACCARD S.L., BOLLMANN J., MASLIN M.A., LENG M.J., AND EGLINTON G., 2005.- North Pacific seasonality and the glaciation of North America 2.7 million years ago. *Nature*. 433: 821-825.
- MCCLYMONT E.L, AND ROSELL-MELÉ A., 2005.- Links between the onset of modern Walker Circulation and the mid-Pleistocene climate transition. *Geology*, 33: 389–392.
- RUSSELL M AND ROSELL-MELÉ A., 2005.- Preliminary Study of Fluxes of Major lipid biomarker classes in the water column and sediments of Lake Baikal, Russia. *Global and Planetary Change*, 46: 45-56.
- BENDLE J, ROSELL-MELÉ A AND ZIVERI P., 2005.- Variability of unusual distributions of alkenones in the surface waters of the Nordic Seas. *Paleoceanography* 20, Art. No. PA2001.
- KUCERA M, ROSELL-MELÉ A, SCHNEIDER R., WAELBROK C. AND WEINELT M., 2005.- Multiproxy approach for the reconstruction of the glacial ocean surface (MARGO). *Quaternary Science Reviews*, 24: 813-819.
- MCCLYMONT E.L, ROSELL-MELÉ A., LLOYD J.M., GIRAudeau J. AND PIERRE C., 2005.- Alkenone and coccolith records of the mid-pleistocene in the south-east atlantic: implications for the UK37' index and south African climate. *Quaternary Science Reviews*, 24: 1559–1572.
- KAGEYAMA M., LAÏNÉ A., ABE-OUCHI A., BRACONNOT P., CORTIJO E., CRUCIFIX M., DE VERNAL A., GUIOT J., HEWITT C.D., KITO H., KUCERA M., MARTIA O., OHGAI TO R., OTTO-BLIESNER B., PELTIER W.R., ROSELL-MELÉ A., VETTORETT G., WEBER S.L., YU Y., MARGO PROJECT MEMBERS, 2006.- Last Glacial Maximum temperatures over the North Atlantic, Europe and western Siberia: a comparison between PMIP models, MARGO sea-surface temperatures and pollen-based reconstructions. *Quaternary Science Reviews* 25: 2082–2102.
- DE VERNAL A., ROSELL-MELÉ A., KUCERA M., HILLAIRE-MARCEL C., EYNAUD F., WEINELT M., DOKKEN T. AND KAGEYAMA M, 2006.- Comparing proxies for the reconstruction of LGM sea-surface conditions in the northern North Atlantic. *Quaternary Science Reviews*, 25: 2820–2834.
- ROSELL-MELÉ A. AND MCCLYMONT E.L., 2007.- Biomarkers as paleoceanographic proxies in Proxies In Late Cenozoic Paleocanography ed. Hillaire-Marcel C., and de Vernal A. Elsevier, Amsterdam, 459-509.

- ESCALA M., ROSELL-MELÉ A., AND MASQUÉ P., 2007.- Identification Of Tex86 Related Glycerol Dialkyl Glycerol Tetraethers in Continental Eurasia And Southern Ocean Samples By HPLC/ Ion Trap-MS. *Organic Geochemistry* 38: 161-164.
- BENDLE J.A.P, AND ROSELL-MELÉ A., 2007 - High resolution alkenone sea surface temperature variability on the North Icelandic Shelf: implications for Nordic Seas paleoclimatic development during the Holocene. *The Holocene* 17, 9-24.
- MCCLYMONT E.L., MARTÍNEZ-GARCIA A. AND ROSELL-MELÉ A., 2007.- Benefits of freeze-drying sediments for the analysis of total chlorins and alkenone concentrations in marine sediments. *Organic Geochemistry* 38: 1002-1007.
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### ***RELATED RESEARCH ACTIVITIES***

#### ***Research funding***

- *Ministerio de Educación y Ciencia/ Ministerio De Ciencia y Tecnología*
  - 2008-2010. Plan Nacional I+D+i (Eur 120,000): "Clima Ibérico y Circulación Meridional Atlántica (CIMERA)". .  
Lead PI: Rainer Zhan. Co-PI: Antoni Rosell
  - 2006-2009. Convocatoria Especial Año Polar Internacional (Eur 107,000): "Control climático de la variabilidad del hielo marino y la productividad marina en el Ártico durante el Holoceno del hielo marino y la productividad marina exportada de carbono". Lead PI: Antoni Rosell.
  - 2006-2009. Plan Nacional (Eur 98,000). "Calibración y validación de proxies geoquímicas para la SST: hacia una reconstrucción mejorada de los parámetros oceánicos superficiales". Co-PI: Antoni Rosell.  
Lead PI: Graham Mortyn.
  - 2006-2007. Acción Complementaria (Eur 121,800): "Campaña 2006 proyecto FATEFUEL". Lead PI: Antoni Rosell.
  - 2006-2007. Acción Complementaria (Eur 7,000): "Calibración de proxies de temperatura superficial del mar en latitudes altas y medias del Atlántico". Co-PI: Antoni Rosell. Lead PI: Graham Mortyn
  - 2006. Plan Nacional I+D. Infraestructuras Científico-Técnicas (Eur 406,429): Espectrómetro de Masas para medida de Relaciones Isotópicas de Isótopos Estables
  - 2003-2006. Acción Estratégica sobre actuaciones de I+D contra vertidos marinos accidentales (Eur 174,445): "Implicaciones Oceanográficas y Biogeoquímicas de la Dispersión en la Columna de Agua del Fuel Vertido Desde el Pecho del Prestige". Lead PI: Antoni Rosell.
  - 2003-2006. Plan Nacional I+D (Eur 185,185): "Un Estudio Multidisciplinar Sobre Los Procesos De Acoplamiento Plankton Bentos En El Mar De Weddell, Antártida (Un Programa EASIZ)". Co-PI: Antoni Rosell. Lead PI: Francesc Pagès.

- 2003-2006. Plan Nacional I+D (Eur 25,300): "Principios De Extremo En Modelos Climáticos". Co-PI: Antoni Rosell. Lead-PI: Josep Enric Llebot.
- *Ministerio de Cultura*
  - 2006-2007. Dirección General de Bellas Artes y Bienes Culturales (Eur 12,000): "Prácticas Sociales y Producción de la Vida Social en los Horizontes del Formativo-Paracas. La Costa Sur del Perú c. 1400-100 cal ANE". Co-PI: Antoni Rosell. Lead PI: Pedro Castro.
- *AGAUR/DURSI, Generalitat de Catalunya*
  - 2006-2009. (Eur 36,000): "Projecte La Puntilla (Nasca, Ica, Perú)". Co-PI: Antoni Rosell. Lead PI: Pedro Castro
  - 2003-2005. Xarxa Temàtica de Paleoclimatologia (Eur 4,100). Lead PI: Antoni Rosell.
  - 2003. Acció Especial (Eur 15,000). Lead PI: Antoni Rosell.
  - 2007-2008: Beques de recerca per a Professors I investigadors visitants (Eur 26,625). Applicant: A. Rosell
- *Universitat Autònoma de Barcelona*
  - 2006-2007. Noves Línies de Recerca (Eur 6000): "Anàlisi de restes orgàniques en peces arqueològiques per reconstruir l'alimentació humana en la prehistòria". Lead PI: Antoni Rosell.
- *European Commission*
  - 1998- 2000. Environment and Climate, IV th framework (Eur 750,000): "Sea-Surface Temperature Evolution Mapping Project based on UK37 Stratigraphy: TEMPUS ". Coordinator: Antoni Rosell.
  - 2001-2003. Environment and Climate, V th framework: Contractor in CONTINENT (Eur 1,500,000): "High resolution continental paleoclimate record from Lake Baikal: a key site for Eurasian teleconnections to the North Atlantic Ocean and monsoonal system." Coordinator: Hedi Oberhänsli. Leading partner contractor: Antoni Rosell.
  - 2004-2005. VI th framework. Marie Curie training course (Eur 78,000): "Proxies in Paleoclimatology: Education and Research – PROPER". Coordinator: S. Jung. Leading partner contractor: Antoni Rosell.
- *The Natural Environment Research Council, United Kingdom*
  - 2000-2002. ODP Thematic Programme (Eur 60,000): "The role of the Benguela Current upwelling system in controlling the intensification of northern hemisphere glaciation". Lead PI: Antoni Rosell
  - 1999-2001. ARCICE Thematic programme (Eur 100,000): "Observations and numerical modelling of sedimentation and ice dynamics on Arctic continental margins". Lead co-PI: Antoni Rosell
  - ODP, Rapid response award (Eur 1,200): "Quantification of the extent of global paleoceanographic variability since the Miocene". Lead PI: Antoni Rosell.

- 1996-1999. Fellowship (Eur 180,000): "Diagenesis of hopanoids in Recent sediments: Potential in palaeoenvironmental reconstruction and role of macromolecular material in their geological preservation". Lead PI: Antoni Rosell
- Grants in kind for usage of Analytical Facilities (Eur 75,000). Lead PI: Antoni Rosell
- *The Royal Society, United Kingdom*
  - Small Grant (Eur 15,000): "Biomarkers as tracers of ice rafted debris Sources: The Heinrich events". Lead PI: Antoni Rosell
- *British Council, United Kingdom*
  - Alliance programme, collaboration between France and UK (Eur 1,500): "Significance of diagenesis in the UK37' sea surface temperature record of marginal seas.". Lead British PI: Antoni Rosell
- *University of Durham, United Kingdom*
  - Special equipment fund: Eur 25,000 (1999). Lead PI: Antoni Rosell.
- *Fundación MAPFRE*
  - 2008. Ayudas a la Investigación 2007, Prevención y Medio Ambiente (Eur 15,000): "El papel del ciclo de carbono oceánico en los cambios atmosféricos de CO<sub>2</sub>". Lead PI: Antoni Rosell
- *IMAGES ( International Marine Past Global Change Study)*
  - 2003. Funding for the organisation of workshop for the MARGO (Multiproxy Approach for the reconstruction of the Glacial Ocean Surface) project (Eur 8,000). Organiser: Antoni Rosell
- *KIGAM, Korean Institute of Geoscience and Mineral Resources*
  - 2002. Contract. (Eur 3,102):. "Measurement of biomarkers in the East Sea". Lead PI: Antoni Rosell.
- *Max-Planck Institute für Biogeochemie*
  - 2003. Contract. (Eur 20,000): "Ocean Conditions at the Last Glacial Maximum". Lead PI: Antoni Rosell.

#### Supervision of postgraduate research projects

- 1996-1999.- PhD thesis. "Photosynthetic pigment stratigraphy as a new palaeoceanographic indicator in the Quaternary". Student: Matthew Higgison. Co-supervised jointly with Prof. Maxwell (Bristol) and Prof. Shackleton (Cambridge). Funded by NERC.
- 1997.- MSc Thesis. "Variability of sea surface palaeotemperatures in the NE Atlantic during the last climatic cycle". Student: Stig Hellebust. Self-funded.
- 1997-2000.- PhD thesis. "Significance of diagenesis in the UK<sub>37</sub>' sea surface palaeotemperature record". Student: Jeremy Marlow. Funded by NERC.
- 1998-2001.- PhD thesis. "Changes in the desertification in the Iberian Peninsula during the last 100 yrs". Student: Emma Pearson. Co-supervised jointly with Dr Stephen Juggins (Newcastle). Funded by NERC.
- 1999-2002.- PhD thesis. "Investigation of the origin of biomarker signals associated to ice rafted debris in North Atlantic sediments ". Student: Oksana Kornilova. Self-funded.



1999-2002.- PhD thesis. " Holocene climate variability in the North Atlantic Region". Student: James Bendle. Funded by NERC.

2000-2004.- PhD thesis. "Role of the carbon cycle in the Mid Pleistocene Revolution". Student: Erin McClymont. Funded by Durham University.

2003-2008.- Tesis doctoral. "Integrated assessment of nutrient cycles (Nitrogen and Phosphorus cycles) in a Catalan river catchment, La Tordera". Student: Frederique Caille. Funded by Generalitat de Catalunya.

2006-2007.- Tesis master. "Aplicació d'un mètode d'anàlisi de contaminants orgànics en diferents matrius ambientals". Student: Xavier Buselli.

2003-2008.- Tesis doctoral. "Fate of the Oil Spill from the Prestige Wreck in the Water Column". Student: Saioa Elordui. Funded by Generalitat de Catalunya (FI).

Current PhD students, with master/tesina completed: Natalia Núñez (Fundació La Caixa), Marina Escala (FI), Alfredo Martínez (FPU), Bastian Hambach (FPI).

### Organizational activities

- Head of the research group GEPOC at ICTA, SGR recognized by Generalitat de Catalunya since 2005.
- Member of the management team of the Institute of Environmental Science and Technology at the UAB from 2003 to 2006
- Co-chair of CLIVAR-ES since 2007, and member of the steering committee since its foundation in 2005.
- Coordinator of the network Paleocat (paleoclimatology in Catalonia), funded by Generalitat de Catalunya with the involvement of 1 research groups from 3 universities, 4 CSIC institutes and CREAM.
- Organiser of an Interlab comparison exercise to analyze alkenonones with the participation of 32 groups from Europe, US, Canada, Japan and Australia
- Chief and co-chief scientist in 2 research cruises
- Organization of the International workshop for the MARGO project at Castellet de Foix (15-17 september 2003): 60 participants
- *International symposium*

1998.- Chair en el simposium "Proxies in Paleoceanography" Goldschmidt conference, Toulouse, Francia (30 agosto- 3 septiembre).

1999.- Convenor en el simposium "New approaches in estimating marine and continental palaeotemperatures for the Cenozoic", European Union of Geosciences 10, Strasbourg, Francia (28-31 Marzo)

2001.- Invited co-convenor: "The use of coccolithophore-based proxies in palaeoceanography: biomarkers and coccolith carbonate". EGS XXVI General Assembly, Nice, France, March 26-30, 2001.

- 2001.-Co-convenor del symposium "Quantitative palaeoclimate and environmental reconstruction: data - model -comparisons", EUG (European Union of Geosciences) meeting en Strasburg 8-12 April 2001.
- 2002.-. Co-convenor in two symposiums in the Biogeosciences and Paleoclimatology session of the EGS XXVII General Assembly, Nice, France, 22-26 April 2002.
- 2003.- Co-convenor in two symposiums in the Biogeosciences and Paleoclimatology session of the EGS-AGU-EUG Joint Assembly, Nice, France, 6-11th April 2003.
- 2005 and 2007.- Chair of Session at the 22<sup>nd</sup> and 23<sup>rd</sup> International Meeting on Organic Geochemistry (Seville and Torquay, September 2005 and 2007)

- *Referee of research journal*

Nature, Science, Geology, Earth Planetary Science Letters, Quaternary Science Reviews, Paleoceanography, Geophysical Research Letters, Geochimica Cosmochimica Acta, Marine Chemistry, Organic Geochemistry, Quaternary Research

- *Reviewer research projects*

*Framework Vth y V, Environment and Climate programme, EU; National Science Foundation, EEUU; Natural Environment Research Council, UK; Nederlandse Organisatie voor Wetenschappelijk Onderzoek., The Netherlands; Agence Nationale de la Recherche, France; Integrated Ocean Drilling Project; Ministerio de Ciencia y Tecnología, Spain; European Science Foundation; Fundación BBVA.*