

# CATALOGUE

## AREAS

Health Sciences

Experimental Sciences

Human Sciences

Social Sciences

Technological Sciences

Health and Social Sciences

Health and technological Sciences

Human and Social Sciences

Technological and Experimental Sciences

Technological and Human Sciences

Experimental and Health Sciences



Universidad de Alcalá



# Health Sciences

- FOOD, NUTRITION AND PUBLIC HEALTH STRATEGIES
- PHARMACOEPIDEMIOLOGY AND CLINICAL PHARMACOLOGY
- PHARMACOGENOMIC OF CANCER
- PATHOPHYSIOLOGY OF THE CARDIOVASCULAR, RENAL AND NERVOUS SYSTEMS
- PHYSIOTHERAPY IN THE APPROACH TO PAIN. TELEPHYSIOTHERAPY AND AUGMENTED THERAPEUTIC REALITY
- NEUROMUSCULOESKELETAL PHYSICAL THERAPY IN STAGES OF LIFE
- PHYSIOTHERAPY IN WOMEN'S HEALTH
- DRUG FORMULATION AND BIOAVAILABILITY
- TISSUE ENGINEERING AND REGENERATIVE MEDICINE
- THERAPEUTIC INNOVATIONS
- MECHANISM OF ACTION OF BIOLOGICALLY ACTIVE COMPOUNDS
- NEUROBIOLOGY OF PAIN
- NEW ANTITUMOR COMPOUNDS: TOXIC ACTION ON LEUKEMIA CELLS





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## NEUROMUSCULOKELETAL PHYSICAL THERAPY IN STAGES OF LIFE

Code  
787

### FINEMEV

#### RESEARCH AREA

Health Sciences

#### COORDINATOR

Soraya Pacheco da Costa

#### KEYWORDS

Physiotherapy,  
Neuromusculoskeletal  
disorders, Baby, Childhood,  
Adolescence, Adult,  
Elderly

#### AIM

- Physiotherapy centers
- Child Development and Early Childhood Centers
- Early childhood and primary schools
- Special education colleges
- Secondary education institutes
- Senior care center
- Geriatric Residences

#### CONTACT



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### ABOUT US

The research group Neuromusculoskeletal Physical Therapy in stages of life addresses different neuromusculoskeletal disorders from a biopsychosocial and scientific perspective in populations at different stages of life through Physiotherapy interventions.

### RESEARCH LINES

- Physiotherapy in babies, children and adolescents with neurosensorimotor alterations.
- Physiotherapy in babies and children with delay in typical sensorimotor development.
- Physiotherapy in adults and elderly with Neuromusculoskeletal disorders.
- Therapeutic exercise to improve the quality of life in the different stages of life.
- Analysis of scientific production in Neuromusculoskeletal Physiotherapy

### OFFERED SERVICES

- Assessment, advice and/or intervention of Physiotherapy, Therapeutic Education and assisted mobility to improve functionality, participation and quality of life in babies, children and adolescents with neuromusculoskeletal disorders and in their caregivers.
- Assessment and advice of Physiotherapy to improve functionality, participation and quality of life both in subjects with neuromusculoskeletal disorders and in their caregivers.
- Physiotherapy intervention in people with neuromusculoskeletal disorders and/or at risk of dependence.
- Postgraduate training courses on the physiotherapeutic approach in different alterations of the neuromusculoskeletal system.
- Prescription of therapeutic exercise to improve the quality of life in people over 65 – Physiotherapy workshops for the elderly.
- Educating programs for families and caregivers.
- Postural hygiene workshops in Nursery and Primary Schools; Special Education Schools; Secondary Education Institutes; Senior Care Center.

### MARKETABLE RESULTS





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## PHYSIOTHERAPY IN WOMEN'S HEALTH

Code  
580

**FPSM**

### RESEARCH AREA

Health sciences

### COORDINATOR

María Torres Lacomba

### KEY WORDS

Physiotherapy, Obstetric, Menopause, Breast cancer, Gynecologic cancer, Pelvic floor dysfunction, Pain, Lymphedema, Axillary web syndrome, Therapeutic exercise, Musculoskeletal pain, Health education, Pregnancy, Fibromyalgia, Women, Therapeutic patient education, Sport injuries

### AIM

- Public and private centers that provide health services
- Associations and professional associations
- Institutions related to women's health
- Educational institutions

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### ABOUT US

The Physiotherapy in Women's Health Research Group was created and registered at the University of Alcalá in 2007, CCS/2007F15. Since its establishment, its focus has been addressing women's health and well-being. The FPSM Group was given the designation of RECOGNIZED GROUP OF RESEARCH CCS/2007R15 in 2010, and of HIGH-PERFORMANCE RESEARCH GROUP in 2020.

### RESEARCH LINES

- Oncology physiotherapy
- Pelvic floor physiotherapy
- Vascular physiotherapy
- Respiratory physiotherapy
- Pain Physiotherapy
- Therapeutic patient education
- Sport physiotherapy
- Physiotherapy in higher education

### OFFERED SERVICES

- Research projects in collaboration with Health Centers
- Physiotherapy for women without resources and at risk of social exclusion
- Advice to centers and companies that provide health services, Patient Associations, Associations related to pathophysiological processes, as well as Professional associations of physiotherapists regarding the promotion, prevention, and physiotherapy in women's health
- Workshops and conferences to promote women's health in areas of Physiotherapy, such as sequelae of cancer treatments, pain, pelvic floor dysfunctions (urinary incontinence, pelvic pain, ...), etc
- Specialized training for physiotherapists in Physiotherapy in women's health and information for other health professions (Nurses, Doctors, etc.)
- Promotion, dissemination, and awareness through different Social Networks about physiotherapy in women's health
- Development and evaluation of educational programs in women's health for implementation, development, and awareness

### MARKETABLE RESULTS







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## MECHANISM OF ACTION OF BIOLOGICALLY ACTIVE MOLECULES

Code  
827

### MOABAC

#### RESEARCH AREA

Health Sciences

#### COORDINATORS

Federico Gago Badenas  
Antonio Jiménez Ruiz

#### KEYWORDS

Molecular Pharmacology,  
Drug-Receptor  
interaction, Antitumor  
drugs, Leishmania  
infantum, Simulation  
methods

#### AIM

- Biotechnological and
- Pharmaceutical Industry

#### CONTACT



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### ABOUT US

MOABAC is a joint venture between a “wet bench” and a computational laboratory. The former is led by Prof. Antonio Jiménez-Ruiz and is specialized in the expression and purification of enzymes and the subsequent study of their activities in the absence and presence of inhibitors. This Biochemistry and Molecular Biology group has a strong expertise in the design and evaluation of inhibitors directed against the dimerization interface of dimeric enzymes. The main activities in this lab are directed towards the study of enzymes that are essential for survival of *Leishmania infantum* parasites. The “dry lab”, led by Prof. Federico Gago, is devoted to the study of biomolecular structure, including complexes between the target macromolecules and small ligands, using bioinformatic tools and computational chemistry methods. The MOABAC group as a whole has demonstrated the principles of “rational drug design based on the structure of the receptor”, collaborating in the optimization of different enzyme inhibitors, and has recognized experience in studies of virtual screening and molecular dynamics simulations on various macromolecular systems of pharmacological interest.

### RESEARCH LINES

- Conformational studies of drugs and peptides
- Molecular Pharmacology. Drug-Receptor interactions
- Mechanism of action of antitumor drugs
- Mechanisms of programmed cell death in the protozoan parasite *Leishmania infantum*

### OFFERED SERVICES

- Identification and characterization of the mechanism of action of molecules with biological activity
- Expression and purification of pharmacological targets
- Bioinformatic analysis of pharmacological targets
- Structural characterization of biomolecules
- Ligand modeling and virtual screening of selected chemical libraries
- Computer simulations of ligand-receptor complexes
- Development of biochemical tests for the evaluation of biological activity

### MARKETABLE RESULTS





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## FORMULATION DRUG AND BIODISPONIBILITY

Code  
785

### FMB

#### ÁREAS DE APLICACIÓN

Health Sciences

#### COORDINATOR

M. Ángeles Peña Fernández

#### KEY WORDS

Formulation drugs Vectorization, Modified release, Solubility

#### AIM

- Pharmaceutical industry
- Dermopharmaceutical industry

#### CONTACT



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### ABOUT US

Design, development, elaboration and control of pharmaceutical forms to achieve safe effective and quality drugs with optimal bioavailability. Research and innovation galenic of new pharmaceutical developments. Collaboration and advice on research projects with the pharmaceutical industry.

### RESEARCH LINES

- Design, preparation and control of modified release dosage forms
- Modeling and predictive theories of solubility
- Vectoring strategies to increase bioavailability
- Optimization of drug formulations

### OFFERED SERVICES

- Study and validation of analytical methods for the determination and quantification of drugs
- Advice on pharmaceutical industry research projects
- Drug formulations developments

### MARKETABLE RESULTS





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Listado grupos de investigación UAH

# Experimental Sciences

- WATER, CLIMATE AND ENVIRONMENT
- WELFARE ON ANIMAL RESEARCH
- SOIL BIOLOGY AND SUBTERRANEAN ECOSYSTEMS
- AGROFORESTRY BIOTECHNOLOGY
- CHEMICAL AND FORENSIC SCIENCES
- CATALYSIS DENDRIMERS AND NANOCHEMISTRY
- FORENSIC ENTOMOLOGY
- MOLECULAR GENETICS OF SEED DEVELOPMENT
- DINOFLAGELLATES AND PLANTS GENETICS AND GENOMICS
- BIOLOGICAL INVASIONS
- MYCORRHIZAL FUNGI, TAXONOMY, IN VITRO CULTURE AND FUNGAL FRUCTIFICATION
- MINIATURIZATION AND ANALYTICAL NANOTECHNOLOGY
- PALAEOENVIRONMENTS OF THE QUATERNARY AND ITS CLIMATIC IMPLICATIONS
- IBERIAN PALEONTOLOGY
- POLYMERS AND SUPRAMOLECULES
- SUSTANAIBLE CATALYTIC PROCESSES WITH ORGANOMETALLIC COMPOUNDS
- REACTIVITY AND MOLECULAR STRUCTURE
- PLANT RESPONSES TO STRESS CONDITIONS
- (MICRO)-SEPARATION TECHNIQUES





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de Alcalá



## WATER, CLIMATE AND ENVIRONMENT

Code  
725

### ACMA

#### RESEARCH AREA

Experimental Sciences

#### COORDINATOR

Silvia Martínez Pérez  
Antonio Sastre Merlín

#### KEY WORDS

Hydrology and hydrogeology, Water management, Modelling, Freshwater ecosystems, Climate, Climate change, Geochemistry, Unsaturated zone, Permafrost

#### AIM

- Engineer and environmental management companies
- Public administrations with competences on water management

#### CONTACT



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**ACMA**  
Agua, Clima y Medio Ambiente

### ABOUT US

Research about hydrological resources and aquatic ecosystems, with a multi-disciplinary and holistic perspective, with particular emphasis on the effects of climate on these resources. We also assess the environmental impacts of a variety of activities related to water management.

### RESEARCH LINES

- Surface water – groundwater relationships
- Hydrological, hydrogeological and water quality modelling at a catchment scale
- Simulation of global change scenarios and their impacts on water resources
- Water quality assessment of freshwater ecosystems
- Unsaturated zone hydrology
- Environmental geochemistry
- Water erosion in Mediterranean areas
- Effects of reclaimed water irrigation
- Glacial and periglacial geomorphology
- Water and geology of Mars

### OFFERED SERVICES

- Studies and reports related with the research lines described

### MARKETABLE RESULTS







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## CATALYSIS, DENDRIMERS AND NANO-CHEMISTRY

Code  
656

### Dendrocatt

#### RESEARCH AREA

Experimental Sciences

#### COORDINATOR

Ernesto de Jesús Alcañiz  
Juan C. Flores Serrano

#### KEY WORDS

Organometallic chemistry,  
catalysis, Green chemistry,  
Sustainable chemistry,  
Nanochemistry

#### AIM

- Chemical industry
- Pharmaceutical industry

#### CONTACT



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### ABOUT US

The aim of our research is to improve chemical sustainability by developing new molecular, supported, or nano-catalysts. We apply fundamental concepts of organometallic chemistry and homogeneous catalysis in areas such as aqueous-phase organic synthesis, recovery of catalysts or hydrogen storage

### RESEARCH LINES

- Synthesis and reactivity in aqueous phase of hydrosoluble organometallic complexes (especially with N-heterocyclic carbene ligands)
- Reactivity and mechanistic studies aimed at understanding the role of water in processes involving organometallic complexes
- Development of catalytic processes for the formation of C-C and C-E bonds in aqueous media and biphasic recovery of catalysts
- Recovery of catalysts supported on nanomaterials (dendrimers, nanoparticles, carbon nanotubes, etc.)
- Synthesis and characterization of water-soluble metal nanoparticles stabilized by NHC ligands
- Preparation, properties and reactivity of open-shell palladium complexes
- Catalysts for the chemical storage of hydrogen

### OFFERED SERVICES

- Technical services of synthesis and characterization of inorganic compounds
- Advice in the areas of expertise of the research group

### MARKETABLE RESULTS





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## POLYMERS AND SUPRAMOLECULES

Code  
718

### POLSUP

#### ÁREAS DE APLICACIÓN

Experimental Sciences

#### COORDINATOR

Francisco Mendicuti Madrid

#### KEYWORDS

Polymers, Colloids,  
Tensioactives,  
Supramolecules,  
Cyclodextrins,  
Photophysics, Rheology,  
Light Scattering, GPC,  
Molecular Modelling

#### AIM

- Research groups from the UAH and other universities
- Research centers and companies in chemical and pharmaceutical sectors

#### CONTACT



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#### ABOUT US

Theoretical-experimental study of polymers and supramolecular structures (macrocycles, micelles, vesicles/liposomes, liquid crystals, gels, etc.) by using different techniques and physicochemical methods.

#### RESEARCH LINES

- Synthesis, characterization and the study of conformational properties of polymers (polyesters, polyphosphazenes, polyelectrolytes, photoconductive polymers, etc.)
- Micro- and nano-transporters of drugs and genic material (polymers, macrocycles, micelles, vesicles/liposomes, liquid crystals, microgels, etc.)
- Modulation of non-linear optical properties of molecules using the supramolecular chemistry
- Phasic and rheological characterization of micelles, vesicles/liposomes, crystals liquids, microgels, etc.
- Polymeric gels and microgels: design, characterization and applications mainly in the field of biotechnology
- Development of colored surfaces based on synthetic melanins
- Thermodynamics of the transport properties in biological systems

#### OFFERED SERVICES

- Characterization of a wide variety of systems using techniques in which group members are experts (GPC, DLS, Rheology, UV-Vis, steady-state and time resolved Fluorescence and circular dichroism spectroscopies, molecular modelling, etc.)

#### MARKETABLE RESULTS







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## IBERIAN PALAEOLOGY

Code  
824

## PALEOIBÉRICA

### RESEARCH AREA

Experimental Sciences

### COORDINATOR

Fernando Barroso Barcenilla

### KEY WORDS

Invertebrate and  
vertebrate palaeontology,  
Stratigraphy,  
Taphonomy,  
Earth Sciences

### AIM

- Educational centers
- Municipalities
- Councils
- Autonomous Communities

### CONTACT



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## ABOUT US

Research Group of the University of Alcalá (UAH), with the participation of researchers specialized in different Palaeontological areas from other Spanish and Portuguese universities

## RESEARCH LINES

- Palaeontology of Mesozoic marine and terrestrial ecosystems of the Iberian Peninsula
- Biostratigraphy
- Taphonomy
- Palaeohistology
- Didactics of Earth Sciences

## OFFERED SERVICES

- Geological evaluation advisory and consulting
- Palaeontological interventions
- Taphonomic and palaeohistological studies
- Restoration and curation of fossils
- Design and development of didactic activities
- Organization of scientific outreach events

## MARKETABLE RESULTS





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## SUSTAINABLE CATALYTIC PROCESSES WITH ORGANOMETALLIC COMPOUNDS

Code  
728

### SOSCATCOM

#### RESEARCH AREA

Experimental Sciences

#### COORDINATOR

Marta E. G. Mosquera  
Gerardo Jiménez Pindado

#### KEY WORDS

Organometallic chemistry,  
Catalytic processes,  
Bioplastics,  
ROP polymerization, Green  
catalytic oxidation, Small  
molecules activation

#### AIM

- Chemical Industry
- Plastics Industry
- Packaging
- Coatings

#### CONTACT



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#### ABOUT US

SOSCATCOM group belongs to the Inorganic Chemistry area in the University of Alcalá and has a strong expertise in the development of catalysts for polymerization, green oxidation and hydrogenation reactions. Recently their research activity has been oriented towards CO<sub>2</sub> valorisation, polymerization of functionalized monomers and monomers coming from renewable resources. Their work includes the design and synthesis of new species mono and polymeric based in Earth abundant elements such as Al, Zn, Ti, Fe and alkali metals and in the study of their activity in catalytic processes. Their interest also expands towards the development of catalysts active for bioplastics generation. Another research line in progress is focused in the study of the influence of non-covalent interactions in polymerization reactions and organic transformations.

#### RESEARCH AREA

- Homo and heterometallic complexes of Earth abundant metals
- Polymerization of renewable monomers and multifunctional monomers  
CO<sub>2</sub> and small molecules activation
- C-H and C-X bond activations, C-C bond formation promoted by block p metals  
C-C and C-E bond formation catalyzed by titanium complexes in low oxidation states
- Synthesis and characterization of nanocatalysts via the anchoring of titanium complexes to silica nanoparticles
- Synthesis and characterization of homogenous catalysts for oxidation processes using green oxidants
- Mechanistic studies of stoichiometric and catalytic processes mediated by metal complexes
- Design of polymers with advanced properties
- Development of hybrid photocatalysts for CO<sub>2</sub> reduction

#### OFFERED SERVICES

- Research in Organometallic Chemistry: synthesis, characterization and catalytic applications of organometallic compounds
- Design of polymers with advanced properties
- Bioplastics from renewable resources
- Teaching and training in Inorganic Chemistry and in Sustainable chemistry in Postgraduate programs

#### MARKETABLE RESULTS







Universidad  
de Alcalá



## REACTIVITY AND MOLECULAR STRUCTURE

Code  
806

### RESMOL

#### ÁREAS DE APLICACIÓN

Ciencias Experimentales

#### COORDINADOR

Luis Manuel Frutos Gaité

#### PALABRAS CLAVE

Química cuántica,  
Fotofísica y fotoquímica  
teórica,  
Fotomecanoquímica,  
Mecanismos de  
reacciones químicas,  
Estudio teórico complejos  
metálicos,  
Mecanofotoquímica,  
Mecanoquímica

#### MERCADO OBJETIVO

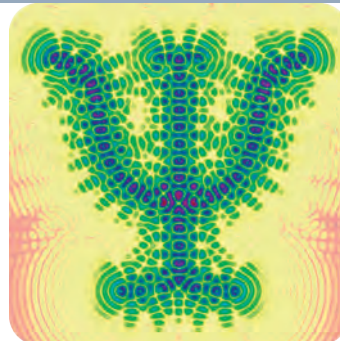
- Sector industrial

#### CONTACTO



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#### OBJETO DEL GRUPO

La actividad investigadora del grupo se centra en el estudio teórico de procesos químicos tanto en estado fundamental como en estado excitado, de manera muy particular en los aspectos mecanísticos y dinámicos de estos procesos. Por un lado el grupo desarrolla modelos teóricos y computacionales para el estudio de diversos procesos moleculares, así como su implementación computacional a través del desarrollo de software específico. Dentro del estudio de procesos en estados excitados, el grupo está especializado en la determinación con métodos multiconfiguracionales de los aspectos mecanísticos y cinéticos de reacciones fotoquímicas en sistemas moleculares (interruptores y motores moleculares, y biológicos (proteínas fotoactivas, ADN, etc.). Además, dentro del estudio de procesos en estados excitados, el grupo ha desarrollado modelos y estudiado sistemas sometidos a fuerzas externas (mecanoquímica y fotomecanoquímica). Asimismo, el grupo cuenta con experiencia en el estudio de procesos de transferencia de energía y carga. Finalmente, el grupo también cuenta con una amplia experiencia en el estudio de la reactividad y propiedades electrónicas y moleculares de complejos organometálicos.

#### LÍNEAS DE INVESTIGACIÓN

- Estudio químico cuántico de procesos y sistemas moleculares. Estudio de la fotoreactividad de dispositivos moleculares: interruptores y motores moleculares
- Estudio teórico y computacional de la mecanoquímica y fotomecanoquímica de sistemas moleculares
- Estudio de la reactividad y propiedades electrónicas y moleculares de complejos organometálicos
- Desarrollos de modelos computacionales para procesos fotoinducidos
- Desarrollo de software en química computacional.

#### SERVICIOS OFERTADOS

- Diseño computacionalmente asistido en moléculas con características y propiedades fotoactivas concretas con posible aplicación en nanotecnología y farmacología

#### RESULTADOS COMERCIALIZABLES





# Human Sciences

- LINGUISTIC ANALYSIS
- THE ANCIENT WORLD AT ALCALÁ
- THE POLITICAL AND VISUAL CULTURES IN THE HISPANIC MONARCHY: PRACTICES AND REPRESENTATIONS BETWEEN THE XVITH and XVIIIITH CENTURIES
- ECOCRITICISM AND ENVIRONMENTAL HUMANITIES
- MIDDLE AGE AND RENAISSANCE
- RECEPTION STUDIES
- SOCIAL PHILOSOPHY
- PREHISTORIC SPELLINGS AND HUMAN POPULATION
- POLITICAL HISTORY OF CONTEMPORARY SPAIN
- HUMAN DEVELOPMENT IN LOW HDI COUNTRIES
- THEORETICAL LINGUISTICS
- LITERATURES AND CULTURES IN ENGLISH
- TEXTS FOR THE HISTORY OF SPANISH





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de Alcalá



## ECOCRITICISM AND ENVIRONMENTAL HUMANITIES

Code  
617

### GIECO

#### RESEARCH AREA

Human Sciences

#### COORDINATOR

Montserrat López Mújica

#### KEY WORDS

Ecocriticism,  
Environmental humanities,  
Literature, Translation,  
Environment

#### CONTACT



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### ABOUT US

This research group approaches the study of the relationship between humans and the environment from the perspective of the humanities. In this sense, it should be noted that the theoretical starting point for our project, ecocriticism, was born as another branch of literary criticism which, together with philosophy, aimed at analysing the values, representations and ethical behavior with respect to nature and the environment in these cultural expressions. This discipline, which encompasses numerous related theories, has gradually developed, and is currently included in the wider field of Environmental Humanities.

The group consists of professors and researchers from various philologies and disciplines in the humanities from various universities, who have been working together since 2006. Their research is based on the study and analysis of the values, representations, and ethical behaviors with respect to nature in Western Language literatures as well as in cinema, art, or other means of cultural expression.

### RESEARCH LINES

- Ecocriticism: theories, methods, and debates
- Environmental humanities: development and debates.
- Philosophy and critical theories and their application to textual analysis (ecofeminism, zocriticism, material ecocriticism, eco-postcolonialism, post-humanism).
- Thought, identity and cultural diversity in the perception of nature.
- Representations of nature in literature and other artistic discourses and media, among them, popular or youth literature, cinema, music, etc.
- Nature as otherness: the relationship of nature with other marginalized groups (indigenous, post-colonial and ethnic groups, animals, etc).
- Environmental ethics. Environmental awareness, activism, and justice in the humanities, particularly its reflection in cultural manifestations.
- Eco-translation, ecolinguistics and ethnoinguistics

### OFFERED SERVICES

- Organization of conferences and seminars.
- Participation in the international peer reviewed journal Ecozon@ (editorial board, submission of manuscripts for consideration, etc.)
- Research stays.
- Supervision and consultation for final degree papers, final master's theses dissertations, and doctoral dissertations.

### MARKETABLE RESULTS





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## SOCIAL PHILOSOPHY

Code  
667

### SP-UAH

#### RESEARCH AREA

Human Sciences

#### COORDINATOR

Julio Seoane Pinilla

#### KEYWORDS

Cultural studies,  
Education of citizenship,  
Modern and  
contemporary philosophy,  
Pragmatism and  
neopragmatism

#### AIM

- Media, University, Politics

#### CONTACT



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## ABOUT US

We are a group trying to promote studies on cultural and social issues within the Faculty of Arts and Humanities. At first our work is linked to a philosophical perspective (such as our formation) but this does not prevent that in our task is to pursue maximum interdisciplinarity.

## RESEARCH LINES

- Cultural studies
- Education of citizenship
- Modern and contemporary philosophy
- Pragmatism and neopragmatism

## OFFERED SERVICES

- Services close to social philosophy

## MARKETABLE RESULTS







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## LITERATURES AND CULTURES IN ENGLISH

Code  
771

### L&CE

#### RESEARCH AREA

Human Sciences

#### COORDINATOR

Alberto Lázaro Lafuente

#### KEYWORDS

Literature, Culture, English  
language, Textual criticism

#### CONTACT



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### ABOUT US

The main aim of this research group is to study cultural and literary issues related to modern and contemporary texts in English. From historical, theoretical and analytical perspectives the members of the group intend to contribute to the interpretation and knowledge of all those sociocultural and literary factors that intervene in the literary and cultural production in English.

### RESEARCH LINES

- Renaissance English Literature
- Reception studies
- Irish studies
- Postcolonial studies and the Diaspora in English
- Literature as communication
- Contemporary fiction in English
- Teaching literature
- Theoretical and historical perspectives of cultural studies
- Rhetoric and approaches to literary theory
- Relations between literature and other fields (science, nature, religion, ideology, etc.)

### OFFERED SERVICES

- Supervising doctoral dissertations
- Organising meetings, seminars and conferences
- Teaching specialised courses and the Master in Literary and cultural Studies in English

### MARKETABLE RESULTS





Universidad  
de Alcalá



## HUMAN DEVELOPMENT IN LOW HDI COUNTRIES

Code  
816

### COOPUAH

#### RESEARCH AREA

Human Sciences

#### COORDINATOR

Roberto Goycoolea Prado

#### KEY WORDS

International cooperation,  
Applied research, Habitat  
and territory,  
Development education

#### AIM

- Civil associations, NGOs and local administrations in countries with low HDI
- Educational institutions

#### CONTACT



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Dpto. Arquitectura

Colegio Convento Carmen

Calzado (Arquit)

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Madrid

# COOPUAH

Grupo de Investigación aplicada  
en Cooperación al desarrollo

### ABOUT US

Research group constituted by professors from different disciplines who have in common: (a) work on various aspects of applied research in development cooperation and (b) understand that the improvement of living conditions requires a cross-cutting approach. It was born with a vocation to generate applied knowledge in the research lines of in which the member of the group work. Since its inception, the group has sought collaboration with other work groups and ONG, participating in research projects, teaching and dissemination of the knowledge generated.

### RESEARCH LINES

- Water, health and environment habitat and territory
- Education for development and social awareness
- Gender and development cooperation

### OFFERED SERVICES

- Evaluation and intervention projects in slums, both from the perspective of habitat and the environment
- Evaluation and formulation of education projects for development and sensitization

### MARKETABLE RESULTS





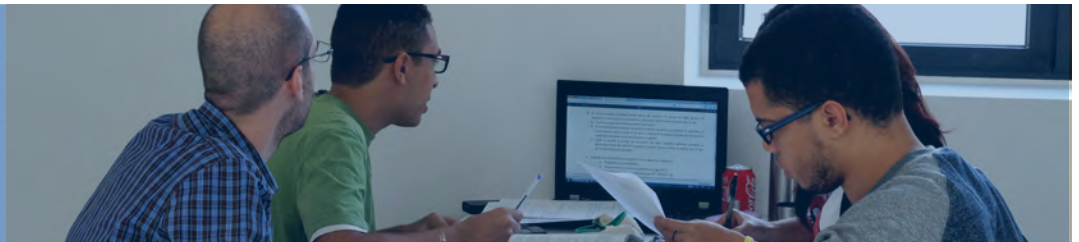


# Social Sciences

- ENTREPRENEURSHIP AND SMEs: BUSINESS MODELS AND DYNAMICS
- TERRITORIAL ECONOMIC ANALYSIS AND PUBLIC POLICIES
- TOURISM COMPETITIVENESS AND INNOVATION
- WELFARE, INEQUALITY, POVERTY AND PUBLIC POLICIES
- BUSSINESS LAW & FINANCIAL MARKETS LAW
- COMPANY LAW AND SECURITIES MARKET
- PUBLIC LAW, FUNDAMENTALS OF LAW, ECONOMIC AND PROCEDURAL LAW
- ENVIRONMENTAL ECONOMICS
- LABOURS STANDARS AND GLOBAL TRADE
- SOCIO-ECONOMIC IMPACT EVALUATION
- GLOBALIZATION, CROSS BORDER RELATIONS AND COMPARATIVE LAW
- INCLUSION AND EDUCATIONAL IMPROVEMENT: COEXISTENCE AND COOPERATIVE LEARNING
- INSERAS, SERVICES FOR SOCIETY: INNOVATION, EMPLOYMENT, BUSINESS AND SECTORIAL COMPETITIVENESS
- EXPLORE, BUILD, CREATE
- FUNDAMENTAL RIGHTS IN SPAIN AND IN EUROPE
- MOTOR DEVELOPMENT, EDUCATION AND SOCIETY
- ADMINISTRATIVE ORGANIZATION, EMPLOYMENT IN THE PUBLIC SECTOR AND LEGAL REGIME OF THE PUBLICS ADMINISTRATION
- SOCIAL POLICY JOAQUÍN COSTA
- SOCIAL RESPONSIBILITY AND SUSTAINABILITY
- COMPLEX SYSTEMS IN SOCIAL SCIENCES



Universidad  
de Alcalá



## ENTREPRENEURIAL ACTIVITY AND COMPANY SIZE: BUSINESS MODELS AND BUSINESS DYNAMICS

Code  
801

### ENTREPRENEUR

#### RESEARCH AREA

Social Sciences

#### COORDINATOR

Fernando Javier Crecente  
Romero

#### KEY WORDS

Entrepreneurship, SMEs,  
Business  
internationalization,  
Business Failure, Business  
Financing, Business size

#### AIM

- Instituciones públicas
- Empresas del sector privado
- Entidades educativas

#### CONTACT



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### ABOUT US

The main purpose of this research group is the analysis of the entrepreneurial activity as well as of the business dynamics. These agents, especially SMEs as well as freelancers, are the main employment, innovation and economic growth creators. Likewise, the phenomenon of intrapreneurship will also be studied. Among the specific researches the analysis of the multiple dimensions that make up the analysis of entrepreneurs and their business dynamics stand out. Dynamics such as: strategic analysis, internationalization processes, the impact of the economic and institutional environment, the access to sources of financing, the business performance, the competitiveness or the business leadership. The presence of thresholds and differential elements of SMEs, makes necessary a quantitative and qualitative analysis of the explanatory factors of their activity, their outcomes, the efficiency of their performance as well as the evaluation of business services policies (especially, the financial ones). The value proposition of this research group is based on an eclectic approach, which brings together the multidisciplinary nature of the entrepreneurship and the business dynamics.

### RESEARCH LINES

- Business dynamics and demographics Entrepreneurial activity and business failure:
- influence of the institutional environment
- Business SMEs financing
- Business strategy and culture Evaluation of government policies to support
- SMEs-entrepreneur

### OFFERED SERVICES

- Diagnostics on business sectors
- Diagnostics on business viability
- Strategic analyzes

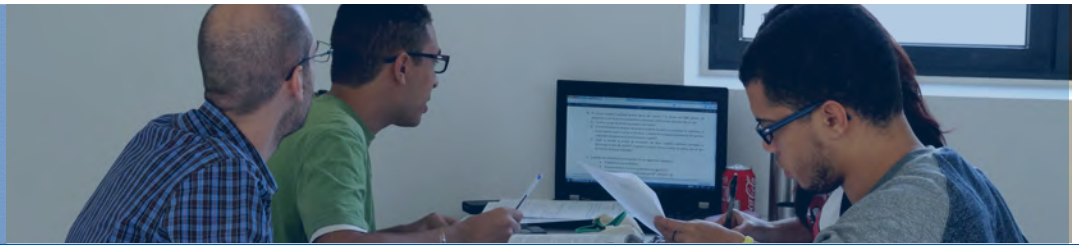
### MARKETABLE RESULTS







Universidad  
de Alcalá



## TOURISM COMPETITIVENESS AND INNOVATION

Código  
715

### ATURI

#### RESEARCH AREA

Social Sciences

#### COORDINATOR

María Jesús Such Devesa

#### KEY WORDS

Tourism economy,  
Sustainable development  
in tourism, Digital  
economy, Tourism  
innovation, Tourism  
competitiveness

#### AIM

- Public and private national and international institutions
- Tourism and related businesses
- Civil society

#### CONTACT



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ANÁLISIS DEL SECTOR TURÍSTICO E INNOVACIÓN

### ABOUT US

Tourism represents one of the main industries, not only in the Spanish economy, but also worldwide. Due to the transversal and intersectoral nature of the touristic activities, as well as their implications on a significant number of other strategic sectors, it is imperative to analyze in depth its operations, impact and implications both at business and aggregated level (regional, national, worldwide).

The relevance of studying this industry also lies in its potential as a productive activity with relevant innovative capabilities.

However, the current challenge is to make the current tourism model compatible with the Sustainable Development Goals (SDGs) proposed in the framework of the United Nations 2030 Agenda. The key is to put the accumulated tourism knowledge and innovation to full use.

### RESEARCH LINES

- Economic impacts of tourism
- Public policies, sustainable management and planning of tourism destinations
- Management of tourism resources
- Tourism innovation: smart tourist destinations and artificial intelligence
- Tourism competitiveness and sustainability in the digital and collaborative economy
- Tourism and sustainable development goals
- Gender perspective and female entrepreneurship
- Business management in tourism
- Efficiency and competitiveness on tourism companies

### OFFERED SERVICES

- Modelling and evaluation of tourism destinations, public policies and tourism enterprises

### MARKETABLE RESULTS





Universidad  
de Alcalá

## ADVANCED RESEARCH IN COMPANY AND FINANCIAL MARKETS LAW

Code  
678

### IADSMV

#### RESEARCH AREA

Social Sciences

#### COORDINATOR

Santiago Hierro Anibarro

#### KEY WORDS

Company law,  
Corporate Governance,  
Financial Markets

#### AIM

- Law Firms, Business Enterprises and associations
- Financial Industry and Public Authorities and Government

#### CONTACT



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Edificio de Derecho  
Calle Libreros, 27, 3ª,  
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Madrid



### ABOUT US

Consolidated research group with experience in complex legal advice to large companies and international law firms.

### RESEARCH LINES

- International Corporate Governance and Company Law
- Directors duties, compensation and liability
- Financial Markets Law

### OFFERED SERVICES

- Legal services and consultancy

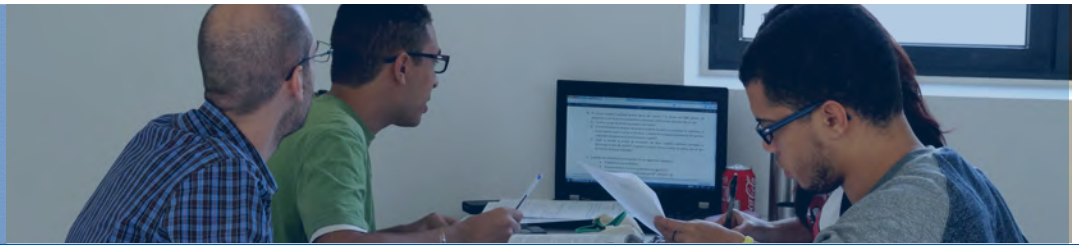
### MARKETABLE RESULTS







Universidad  
de Alcalá



## WELLBEING, INEQUALITY, POVERTY AND PUBLIC POLICY

Code  
752

### WEIPO

#### RESEARCH AREA

Social Sciences

#### COORDINATOR

Olga Cantó Sánchez

#### KEY WORDS

Wellbeing, Inequality,  
Poverty, Public Policy  
evaluation, Social mobility

#### AIM

- Public administration,
- Foundations
- Think Tanks
- NGOs

#### CONTACT



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Madrid



### ABOUT US

WEIPO is a research group for the study of the economics of wellbeing, inequality, poverty in a wide sense, including both theoretical discussions about measurement and empirical studies on income and wealth distribution, social policy evaluation and the analysis of labour market conditions in developed countries. Members have a large experience on analyzing inequality, poverty, income mobility, economic insecurity, intergenerational transmission of opportunities, gender discrimination and the distributive impact of Tax-Benefit policies and their reforms. The group has the main aim of widening current knowledge in economics leading to high quality research, organizing research activities such as seminars or international meetings, training young researchers and transferring knowledge advancement to society and policy makers.

### RESEARCH LINES

- Measurement of wellbeing
- Inequality, poverty, mobility and equality of opportunity
- Redistributive effects of public policy
- Statics and dynamics of income and wealth
- Deprivation and social exclusion
- Equity in the labour market

### OFFERED SERVICES

- Measurement of inequality and poverty
- Labour market and wellbeing analysis
- Evaluation of the distributive impact of public policies
- Assessment in public policy design

### MARKETABLE RESULTS





Universidad  
de Alcalá

**PUBLIC LAW, LEGAL BASES, LAW & ECONOMICS, PROCEDURAL LAW**

**Code  
712**

## **IURA ECONOMIAL**

### **RESEARCH AREA**

Social Sciences

### **COORDINATOR**

M. Carmen Chinchilla Marín

### **KEYWORDS**

General theory of law,  
Public law,  
Law & economics,  
Procedural law,  
Administrative-judicial  
review

### **AIM**

- Public entities, companies acting before the public sector

### **CONTACT**



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### **ABOUT US**

Our focus is the research of the current transformations of the general theory of law and regulations in the fields of public and procedural law, particularly in the areas of administrative and law & economics.

### **RESEARCH LINES**

- General theory of law and renewal of public law
- Renewal of the structural elements of procedural law
- Public regulation of the economy

### **OFFERED SERVICES**

- Legal advice in public and procedural law

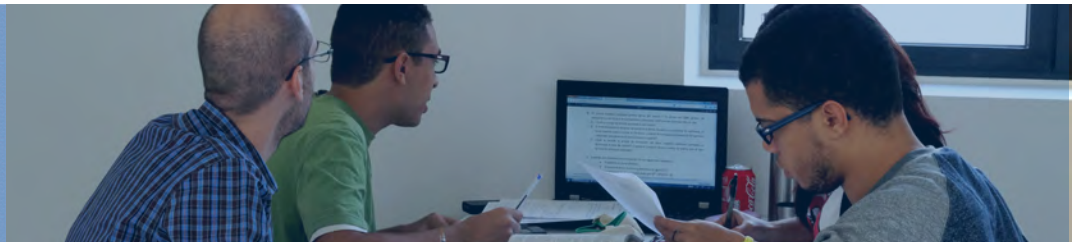
### **MARKETABLE RESULTS**







Universidad  
de Alcalá



## LABOUR STANDARDS AND GLOBAL TRADE

Code  
772

### ELABCOM

#### RESEARCH AREA

Social Sciences

#### COORDINATOR

José Luis Gil y Gil

#### KEY WORDS

Globalization, Global trade, Multinational enterprises, ILO, Social justice, Decent work, Labour standards, Social clauses

#### AIM

- Social partners (worker's and employer's organisations)
- Multinational enterprises

#### CONTACT



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Madrid



### ABOUT US

Analysis of the socio-legal dimension of globalization, in particular liberalization of trade and the issue of multinational enterprises.

### RESEARCH LINES

- Social dimension of globalization
- International universal and regional Labour Law instruments
- Social clauses of free trade agreements (FTAs)
- Multinational enterprises and labour standards in a globalized world
- Transformation of Labour Law and labour standards
- Labour standards, labour markets and technological factor
- Internationalisation of Labour Law and transnational mobility

### OFFERED SERVICES

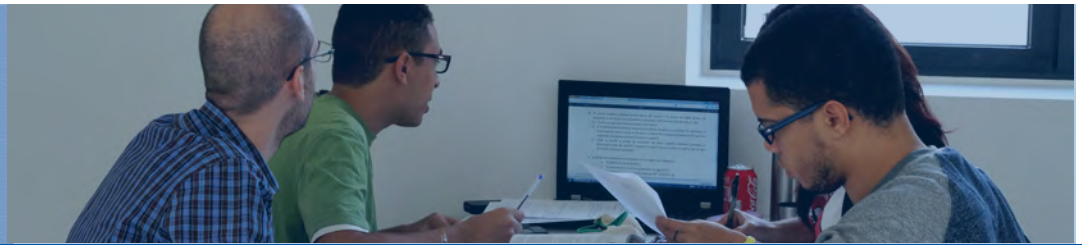
- Advanced research
- Legal advice
- Elaboration of legal opinions and technical reports
- Legal training and knowledge transfer

### RESULTADOS COMERCIALIZABLES





Universidad  
de Alcalá



## FUNDAMENTAL RIGHTS IN SPAIN AND IN EUROPE

Code  
603

### DEFEE

#### RESEARCH AREA

Social Sciences

#### COORDINATOR

Encarnación R. Carmona  
Cuenca

#### KEYWORDS

Fundamental Rights,  
Spanish Constitution,  
European Convention on  
Human Rights, Charter of  
Fundamental Rights of the  
European Union, European  
Social Charter

#### AIM

- Public Administrations
- Collectives of judges, prosecutors and lawyers and jurists in general
- NGOs
- Secondary Education Establishments

#### CONTACT



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### ABOUT US

Our object of study is research on validity and effectiveness of the fundamental rights recognized by the Spanish Constitution. Nevertheless, at present, this study cannot do without an analysis of rights by the different European institutions and its documents. The European integration process and Article 10.2 of the Spanish Constitution require completing the analysis of fundamental rights at the national level with the study of these rights, especially those recognized under the European Convention on Human Rights, the Charter of Fundamental Rights of the European Union and the European Social Charter.

### RESEARCH LINES

- Fundamental Rights in the Spanish Constitution
- European Convention on Human Rights
- European Social Charter
- Charter of Fundamental Rights of the European Union

### OFFERED SERVICES

- Research on compliance with the fundamental rights recognized under the Spanish Constitution and in various European documents (Research Projects)
- Advising public and private institutions on effectiveness of fundamental rights in our legal system
- Courses, Seminars and Conferences into the subject studied
- Collaboration with institutions in disseminating a rights culture (Research contracts)

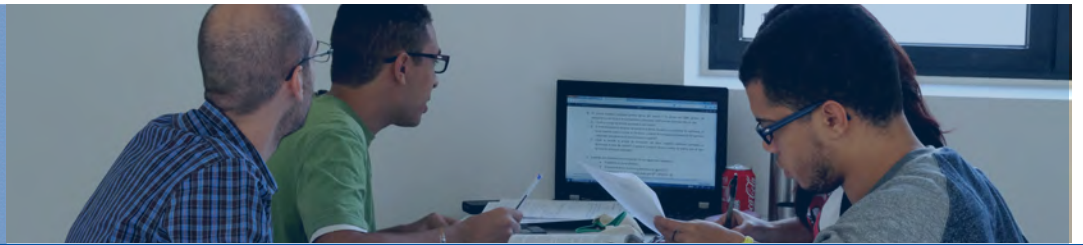
### MARKETABLE RESULTS







Universidad  
de Alcalá



EXPLORE, BUILD, CREATE

Code  
563

EBC

RESEARCH AREA

Social Sciences

COORDINATOR

Germán Ros Magán

KEY WORDS

Education, STEAM, STEM,  
Interdisciplinarity,  
Transdisciplinarity,  
Didactics

CONTACT



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ABOUT US

We are devoted to develop inter and transdisciplinary methodologies in education and specific didactics. The group consists of 9 members, specialists in different areas of didactics, i.e. physics, mathematics, geology, biology, music, plastic and visual arts, engineering and psychology of education.

RESEARCH LINES

- Connecting research in didactics with practice in the classroom.
- Identify and analyze good educational practices based on interdisciplinary integration methodologies.
- Design, apply and disseminate educational proposals for all stages of education based on the most appropriate methodologies with the basic principle of inter or transdisciplinarity.
- Create networks between the University and the educational centers.
- Encouraging interest in science, increasing vocations, and gender equality.
- Promoting knowledge integration and networking between the different educational stages.
- To strengthen the connection between the different areas of scientific and humanistic knowledge.

OFFERED SERVICES

- Training of teachers at all educational stages
- Consultancy to centers, associations or groups related to Education
- Networking between schools, institutions and the University

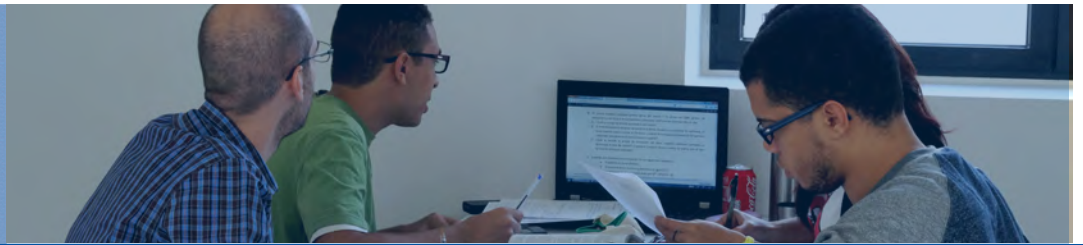
MARKETABLE RESULTS







Universidad  
de Alcalá



## COMPLEX SYSTEMS IN SOCIAL SCIENCES

Code  
657

**SCCS**

### RESEARCH AREA

Social Sciences

### COORDINATOR

Javier Carrillo Hermosilla  
Federico Pablo Martí

### KEY WORDS

Economy, Complexity,  
Sustainability, Technology

### AIM

- Sector público y privado

### CONTACT



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Madrid

GRUPO DE INVESTIGACIÓN  
SISTEMAS COMPLEJOS EN  
CIENCIAS SOCIALES

**SCCS**



## ABOUT US

Recently social sciences, especially economics, have incorporated in its methodology aspects related to complexity. The extraordinary increase in the current availability of statistical information as well as in computing power, allows a change in the top-down orientation, that has traditionally characterized social sciences research, by a bottom-up approach, rather less limited when representing the real behavior of economic agents and their relationships. In particular, the use of methodologies such as agent-based simulation, along with network analysis and processing of large databases, makes it possible to explain the aggregate behavior of society and its economy as an emergent phenomena arising from the individual actions of its members. The group's goal is to apply the techniques of complexity analysis in the field of economics and other social sciences, with particular attention to spatial, technological and environmental issues.

## RESEARCH LINES

- Agent-based modelling
- Environmental sustainability and circular economy
- Technological change
- Social networks
- Transport systems

## OFFERED SERVICES

- Modelling and evaluation of public and private decision systems through complexity analysis

## MARKETABLE RESULTS







Universidad  
de Alcalá

Listado grupos de investigación UAH

# Technological Sciences

- SIGNAL AND COMMUNICATION ANALYSIS AND THEIR APPLICATIONS
- COMMUNICATIONS, MULTI-RATE SYSTEMS AND BIOMEDICAL ENGINEERING
- COMPUTATIONAL ELECTROMAGNETISM
- MODERN EURISTICS AND NETWORK DESIGN
- ELECTRONIC ENGINEERING APPLIED TO SMART SPACES AND TRANSPORTATION
- ELECTRONIC ENGINEERING APPLIED TO RENEWABLE ENERGY SYSTEMS
- SMART MOBILE PLATFORMS
- MULTISENSORIAL ANALYSIS AND RECOGNITION GROUP
- ACOUSTIC AND ELECTROMAGNETICAL SMART SENSOR NETWORKS AND SIGNAL PROCESSING
- NETWORKS AND INTELLIGENT SYSTEMS
- VIAL ROBOTICS AND ESAFETY
- ADAPTATIVE MICROWAVE SYSTEMS
- SMART SYSTEMS
- ADVANCED NUMERICAL TECHNIQUES
- GEOGRAPHIC INFORMATION TECHNOLOGIES AND TERRITORIAL ANALYSIS
- INFORMATION TECHNOLOGIES FOR TRAINING AND KNOWLEDGE
- INTELLIGENT VEHICLES AND TRAFFIC TECHNOLOGIES



Universidad  
de Alcalá



## SIGNAL AND COMMUNICATIONS ANALYSIS AND THEIR APPLICATIONS

Código  
834

### GASCA

#### RESEARCH AREA

Technological Sciences

#### COORDINATOR

Hilario Gómez Moreno

#### KEYWORDS

Signal Processing,  
Encrypted  
Communications,  
Optimization, Time Series,  
Applications

#### AIM

- Companies and institutions with specific needs in the group's work areas
- Other research groups with complementary interests

#### CONTACT



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Dpto. Teoría de la Señal y  
Comunicación

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600, 28805  
Alcalá de Henares,  
Madrid



### ABOUT US

The fundamental objective of the group is the application of different signal processing techniques in various areas within information and communication technologies always from the point of view of their application.

### RESEARCH LINES

- Non-linear processing in communications
- Coded modulations based on chaos
- Design of digital filters for applications in communications and signal processing
- Optimization techniques for the design of communication systems
- Analysis of multimedia signals (audio, image and video) from the point of view of the direct application
- Signal and time series analysis for characterization and modelling

### OFFERED SERVICES

- Analysis and design of real-time embedded systems, image processing applications and their analysis, design of communication systems and free hardware applications
- Consulting on emerging issues in signal processing, in general, and in communications

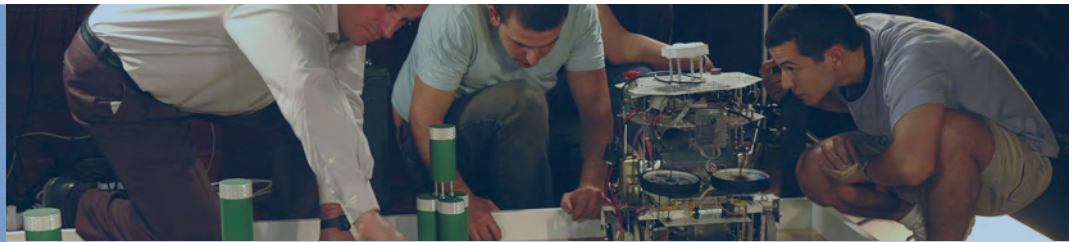
### MARKETABLE RESULTS







Universidad  
de Alcalá



## COMMUNICATIONS, MULTIRATE SYSTEMS, AND BIOMEDICAL ENGINEERING

Code  
746

### COMB

#### RESEARCH AREA

Technological Sciences

#### COORDINATOR

Manuel Blanco Velasco

#### KEY WORDS

Machine Learning,  
OFDM, Communications,  
Electrocardiogram, Pain

#### AIM

- Telecommunication area
- Companies in the area of health sciences

#### CONTACT



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### ABOUT US

The group focuses its scientific activity on the design and implementation of sub-band signal decomposition techniques for their treatment, codification, and transmission using multi-carrier systems. The purpose is the development of new communication techniques as well as systems to detect pathologies based on the above methods.

### RESEARCH LINES

- Design of broadband transceivers for Powerline Communications (PLC), wired or fiber (xDSL), and wireless communications (WiFi, WIMAX, LTE, LTEA...)
- Channel estimation and synchronization techniques in redundant data communications (multi-carrier and single carrier)
- Signal processing for broadband communications
- Biomedical signal processing
- Efficient multimedia encoders
- ECG signal encoders
- Alternas detection of ventricular repolarization
- Pain and stress analysis

### OFFERED SERVICES

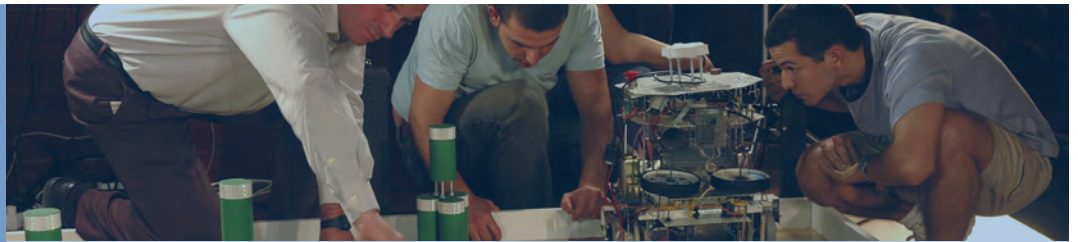
- Design of optimization methods for designing prototype filters
- Fast and efficient algorithms for its implementation
- Design of multi-carrier modulators for data transmission through state-of-the-art communication systems (wireless and xDSL)
- Development of communication channel simulator (technology xDLS)
- Design o high quality audio encoders for low delay applications
- Design of quality on-demand encoders of electrocardiogram (ECG) with high compression ratio
- Design and implementation of biomedical signal processing algorithms
- Application of machine learning to detection and classification applications

### MARKETABLE RESULTS





Universidad  
de Alcalá



## NETWORKS AND INTELLIGENT SYSTEMS

Code  
811

### NetIS

#### RESEARCH AREA

Technological Sciences

#### COORDINATOR

Juan Ramón Velasco Pérez  
Juan Antonio Carral Pelayo

#### KEY WORDS

Cybersecurity,  
Computational Geometry,  
IoT, Ontologies,  
Optimization, Complex  
Networks, Networks and  
Network Services, SDN  
and NFV

#### AIM

- Information & Communication Technologies
- Cybersecurity and Cyber Defense

#### CONTACT



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Madrid



### ABOUT US

Our aim is to contribute to society through research, technological development and the training of specialized personnel in the field of information and communication technologies, especially in relation to networks and network services, optimization of complex networks, intelligent transportation and decision support system.

### RESEARCH LINES

- Optimization of complex networks
- Wireless, vehicular, sensor and 5G networks
- Security of networks and systems
- Intelligent transportation and traffic management systems and services
- Decision support systems
- Network virtualization, programmable networks and cross-platform switches

### OFFERED SERVICES

- Technological consulting
- Technological development
- Specialized training

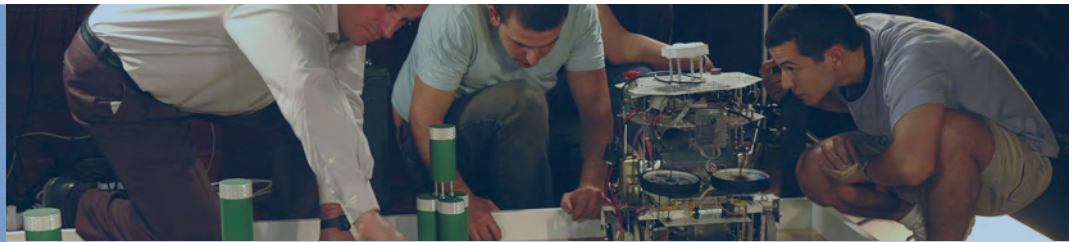
### MARKETABLE RESULTS







Universidad  
de Alcalá



## MULTISENSORIAL ANALYSIS AND RECONGNITION GROU

Code  
620

### GRAM

#### RESEARCH AREA

Technological Sciences

#### COORDINATOR

Saturnino Maldonado  
Bascón

#### KEY WORDS

Pattern recognition,  
Functional diversity,  
Asistencial robotics

#### CONTACT



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Madrid



### ABOUT US

Recognition techniques used for the analysis of different kind of sensors: from image to force signals. Development of technical aids for people with functional diversity.

### RESEARCH LINES

- Artificial intelligent
- Assitencial robotics

### OFFERED SERVICES

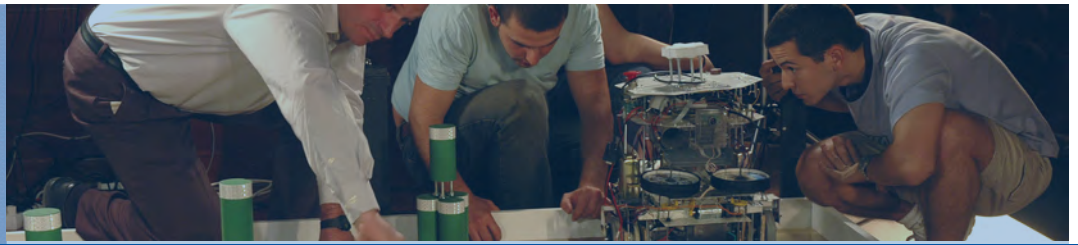
- Motorized children's wheelchairs
- Walkers for children with cerebral palsy
- Motorized elliptical for children with motor difficulties
- Sensorized systems

### MARKETABLE RESULTS





Universidad  
de Alcalá



## SMART SYSTEMS

Code  
833

ISG

### RESEARCH AREA

Technological Sciences

### COORDINATOR

M<sup>a</sup> Dolores Rodríguez  
Moreno

### KEYWORDS

Artificial Intelligence,  
Machine Learning

### AIM

- Space Agencies
- Quality Assurance for any company
- Social Networks

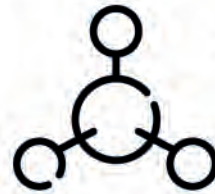
### CONTACT



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# ISG

Intelligent Systems Group



## ABOUT US

The goal of the group is the research on Artificial Intelligence and its applications.

## RESEARCH LINES

- AI Planning
- Machine Learning
- Robotics
- Genetic Programming

## OFFERED SERVICES

- Expertise in Artificial Intelligence, Machine Learning, Deep Learning and Deep Reinforced Learning techniques
- A Telecare system for monitoring Dependent People in their home environments
- Autonomous robots platforms

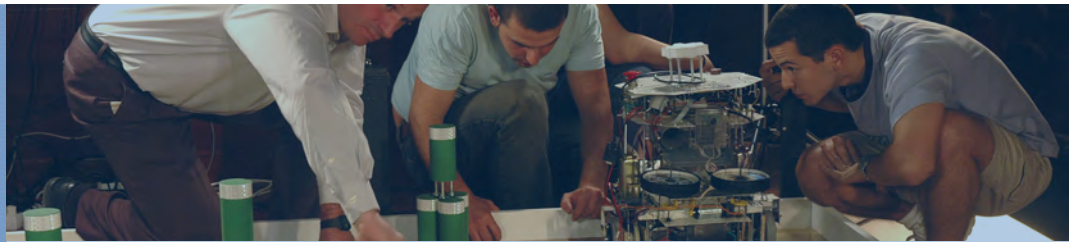
## MARKETABLE RESULTS







Universidad  
de Alcalá



## ADVANCED NUMERICAL TECHNIQUES

Code  
826

### GTNA

#### RESEARCH AREA

Technological Sciences

#### COORDINATOR

Óscar Gutiérrez Blanco

#### KEY WORDS

Radiopropagation,  
Auto guided vehicles,  
Precision agricultures

#### AIM

- Precision farming

#### CONTACT



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Campus Universitario  
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33, 600, 28805  
Alcalá de Henares  
Madrid

# GTNA

## ABOUT US

The group is researching in the Development of applications for the simulation of radio propagation in open areas and applications for auto guided vehicles in precision agriculture.

## RESEARCH LINES

- Development of simulation tools for the prediction of radiated electromagnetic field in open areas.

## OFFERED SERVICES

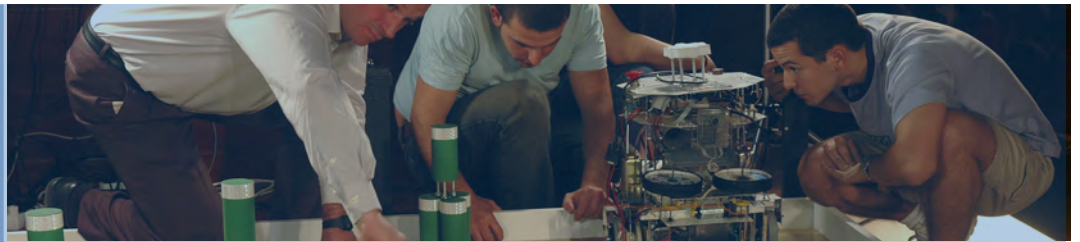
- Development of systems for auto guided vehicles, specially for precision agriculture applications

## MARKETABLE RESULTS





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## GEOGRAPHIC INFORMATION TECHNOLOGIES AND SPATIAL ANALYSIS

Code  
587

### TIGAT

#### RESEARCH AREA

Technological sciences,  
Social sciences

#### COORDINATOR

Montserrat Gómez Delgado

#### KEYWORDS

Assets location, Modeling,  
Land use changes, Urban  
growth simulation,  
Geographic information  
systems

#### AIM

- Public sector: Administration in the field of land planning
- Private sector: consultancy on land, environment, health, archaeology and land planning related issues.

#### CONTACT



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Ambiente  
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Madrid



### ABOUT US

The term "Geographical Information Technologies" (TIG) encompasses a wide range of spatial analysis tools (GIS, cartography, remote sensing ...) used to collect and to analyze digital information on the territory, which constitute crucial tasks in economic and social development, in environmental management, in good governance and in public participation initiatives.

The group leads research on the application of GIT to these areas since the early times of GIS in the 1990's. Our main objective is to apply research on GIT to various territorial issues, to contribute to enhance land planning and to offer products and services based on geolocated information to the public sector, to the citizens, and to the industry.

### RESEARCH LINES

- Application of GITs to socio-territorial issues (land use changes, location of assets and facilities, risk mapping, simulation of urban growth, etc.)
- Geography of plants and vegetation
- GIS and health
- Thematic mapping
- GIT in Geography education

### OFFERED SERVICES

- Consulting on diagnosis and optimal location of assets and facilities for public and private use, risk mapping, land use change modeling.
- Land planning: analysis and simulation of urban growth and its sustainability.
- Scientific production of thematic cartography, design and production of thematic atlases, mapping of landscapes, tourist resources, etc.
- Geographical analysis and mapping of flora and vegetation
- Advice, training, professional development in GIT

### MARKETABLE RESULTS







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de Alcalá

Listado grupos de investigación UAH

# Health and Social Sciences

- COMMUNITY CARE AND SOCIAL DETERMINANTS OF HEALTH
- SPORTS MANAGEMENT AND SPORTS TRAINING
- HUMANIZATION IN THE INTERVENTION OF PHYSIOTHERAPY FOR THE INTEGRAL ATTENTION TO THE PEOPLE
- MOVEMENT AND PERFORMING ARTS MEDICINE AND SCIENCES
- PUBLIC HEALTH AND EPIDEMIOLOGY



Universidad  
de Alcalá



## SPORTS MANAGEMENT AND SPORTS TRAINING

Code  
815

### GRIGEDE

#### RESEARCH AREA

Health Sciences  
Social Sciences

#### COORDINATORS

José Emilio Jiménez-Beatty  
Navarro  
Carmen Ferragut Fiol

#### KEY WORDS

Sport business and management, Physical activity and social sciences, Training and testing in sport, Exercise physiology, Physical activity and health, Gender and physical activity

#### AIM

- Researchers
- Undergraduate and post-graduate students
- Sport companies and sport related entities
- Sport athletes

#### CONTACT



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Madrid



### ABOUT US

We are a multidisciplinary research group mainly focused on sport management, exercise physiology and training and testing applied to health and sport performance.

### RESEARCH LINES

- Sport management
- Gerontology, physical activity and sport
- Gender and sport from social perspectives
- Public politics in sport
- Physical activity in the workplace
- Organizational models in sport management
- Social determinants of physical activity
- Sport training and exercise physiology: Exercise physiology for sport performance and health
- Acute and chronic adaptations to exercise and physical activity in different populations
- Gender differences in adaptations to exercise and physical activity
- The role of myokines in exercise metabolism
- Applied nutrition and exercise metabolism to sport performance and health
- Training and testing in sport performance

### OFFERED SERVICES

- Quantitative and qualitative research
- Sport management and sport training reports and consulting
- Training in sport research, management and physiology

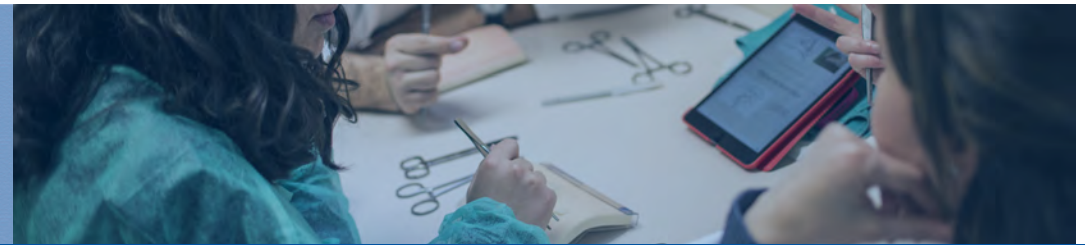
### MARKETABLE RESULTS







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de Alcalá



## HUMANIZATION IN THE INTERVENTION OF PHYSIOTHERAPY FOR INTEGRAL ATTENTION TO PEOPLE

Code  
568

### HIPATIA

#### RESEARCH AREA

Health Sciences,  
Social Sciences

#### COORDINATOR

Yolanda Pérez Martín  
Belén Díaz Pulido

#### KEY WORDS

Physical Therapy Modalities, Physical Therapy Specialty, Humanization of assistance, Biopsychosocial Models, Patient participation, Social participation, Health Services Needs and Demand

#### AIM

- Institutions, Foundations and Associations related to the field of health
- Public and private educational entities
- Health and social entities: Hospitals, Health Care Centers, IMSERSO ...
- Public and private business environment with needs

#### CONTACT



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Fisioterapia

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HIPATIA

### ABOUT US

The bio-psycho-social approach and humanization in health processes susceptible to physiotherapy are essential to achieve an optimal quality of life and functionality in people.

The purpose of the group is to investigate the various elements, approaches, techniques, and methods of intervention of physiotherapy that facilitate the improvement of the state of integral health of people: physical, cognitive, social, and emotional, in the promotion, prevention, and assistance in health processes of different groups of the population, including groups in situation of vulnerability.

### RESEARCH LINES

- Biopsychosocial approach to pain and other health processes
- Humanization in physiotherapy care
- Comprehensive care methods in Physiotherapy
- Adherence and motivation processes in physiotherapy care
- Deepening people's internal experience about their health processes
- Research and development of body and movement awareness techniques

### OFFERED SERVICES

- Physiotherapy Programs for Health Promotion
- Physiotherapy Programs for the Prevention of Health Disorders
- Intervention Programs of Integral Physiotherapy
- Individualized Physiotherapy
- Humanization of the physiotherapeutic attention

### MARKETABLE RESULTS





Universidad  
de Alcalá

Listado grupos de investigación UAH

# Human and Social Sciences

- ARCHEOLOGY: LANDSCAPES, COLONIALISM AND CULTURAL HERITAGE
- GREEN PUBLIC PROCURMENT
- CREATION OF EDUCATIONAL MATERIALS AND MARKET ANALYSIS IN THE TEACHING OF A MOTHER LANGUAGE AND FOREIGN LANGUAGE
- PUBLIC INTERNATIONAL LAW, EUROPEAN UNION LAW AND INTERNATIONAL ECONOMIC LAW
- DEVELOPMENT AND APPLICATION OF HEALTH CARE
- LEGITIMIZING DISCOURSES OF THE CONQUEST AND COLONIZATION OF AMERICA IN THE NORTH AND THE SOUTH OF THE CONTINENT
- ENGLISH LANGUAGE TEACHING: SKILLS, CONTENT, COMPUTERS AND ASSESMENT
- THE TEACHING OF THE SPANISH LANGUAGE TO CHILDREN AND ADOLESCENTS
- HISTORY AND DIVULGATION OF BIOLOGICAL HEALTH SCIENCES
- GENDER EQUALITY
- READING, WRITTING, LITERACY
- LANGUAGE AND EDUCATION
- LINGUISTICS OF SPACIAL AND SOCIAL VARIATION
- CONTEMPORATY LITERATURE
- SOCIETY AND GEOGRAPHY OF THE MAGREB
- INTERDISCIPLINARY CULTURAL STUDIES ABOUT THE UNITED STATES





Universidad  
de Alcalá



## PUBLIC INTERNATIONAL LAW, EUROPEAN UNION LAW AND INTERNATIONAL ECONOMIC LAW

Código  
590

DIP

### RESEARCH AREA

Social Sciences

### COORDINATOR

Francisco Pascual Vives

### KEYWORDS

Public International Law,  
Litigation before  
International Courts and  
Tribunals and European  
Union

### AIM

- States, International Organisations, public entities, and individuals (natural and legal persons)

### CONTACT



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Dpto. Ciencias Jurídicas  
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Calle Libreros, 27, 3ª, 28801  
Alcalá de Henares  
Madrid



## ABOUT US

Our research focuses on public international law, international relations and European Union law and takes into special account the processes of integration in Europe and Latin America, international economic law and the protection of human rights. We also offer legal consulting services in international law (in particular, investment arbitration and human rights protection).

## RESEARCH LINES

- International litigation
- Investment arbitration and international dispute settlement
- International responsibility of the State and international organisations
- European Union and other regional integration processes
- International protection of human rights
- Business, human rights and corporate social responsibility
- Law of the sea and international watercourses
- Armed forces, Security and Defense: legal and geostrategic aspects

## OFFERED SERVICES

- Legal consulting services in international litigation (international courts and tribunals, investment arbitration and human rights)
- Development of research projects at European and national level
- Implementation and management of specialised postgraduate studies
- Organisation of training and dissemination activities through the European Documentation Centre of the University of Alcalá

## MARKETABLE RESULTS





Universidad  
de Alcalá



## DEVELOPMENT AND APPLICATION IN HEALTH PROBLEMS

Code  
742

### DACUS

#### ÁREAS DE APLICACIÓN

Human Sciences  
Social Sciences

#### COORDINATOR

Antonio Martín Duce

#### KEY WORDS

Health care,  
Metabolic syndrome

#### AIM

- Community Patients with liver disease and cancer

#### CONTACT



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Madrid

# D A C U S

## Desarrollo y Aplicación de Cuidados de la Salud

### ABOUT US

Group formed by nurses and researchers from other branches of health, dedicated to the study of a better care.

### RESEARCH LINES

- Theoretical and applied bases of nursing care based on the stages of the life cycle and the person's environment
- Computational modeling, languages and support systems in social and health care
- Metabolic syndrome and obesity

### OFFERED SERVICES

- Community education in cardiopulmonary resuscitation
- Analysis of liver involvement

### MARKETABLE RESULTS







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de Alcalá



## ENGLISH LANGUAGE TEACHING: SKILLS, CONTENT, COMPUTERS AND ASSESSMENT

Código  
594

### RELTS

#### RESEARCH AREA

Human Sciences  
Social Sciences

#### COORDINATOR

Jesús García Laborda

#### KEY WORDS

Skills, CLIL, Technology,  
Teacher, Education,  
Assessment

#### AIM

- Institucional
- Empresas Lingüísticas

#### CONTACT



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Madrid



Investigación en enseñanza de Lenguas:  
destrezas, contenido, ordenadores y  
evaluación

### ABOUT US

The research group aims to research the teaching of English at all educational levels, and both in centers with bilingual education and in centers with "" traditional "" education. Likewise, it is contemplated to analyze and propose improvements in the use of information technology, especially from the point of view of the macrousuary (institutions, administrations, etc.) of computer applications designed for use for the global improvement of English learning. They are fields of special interest, without excluding other related areas, of the research team.

1. The teaching of literacy, understood in the broad sense of the term literacy.
2. The evaluation of the skills and knowledge that make up what is called the communicative capacity (in both traditional and computational systems).
3. The teaching of vocabulary and pronunciation.
4. Work with learning strategies.
5. The integration of language and content in bilingual education.
6. The integration of ICT (especially in a global educational sense) and its effects on the teaching of English.
7. Design and aspects related to it of author's computer tools.
8. Didactic aspects of teaching English for specific, specialty and professional purposes.
9. Teacher training.

### RESEARCH LINES

- Application of New Technologies to Education and language learning
- Developments in e-Learning and ICT applications for teaching.
- Bilingual teaching and education.
- Teaching of foreign languages
- Assessment and testing
- Student evaluation and pedagogical methods
- Teacher Training

### OFFERED SERVICES

- Reports, analysis and advisory

### MARKETABLE RESULTS





Universidad  
de Alcalá

## LEGITIMIZING DISCOURSES OF THE CONQUEST AND COLONIZATION OF NORTH AMERICA AND SOUTH OF THE CONTINENT

Code  
782

### DISLEGAMÉRICA

#### RESEARCH AREA

Human Sciences  
Social Sciences

#### COORDINATOR

Francisco Castilla Urbano

#### KEYWORDS

Conquest, Colonization,  
America, North-south  
comparison, Political  
philosophy, Natural history

#### AIM

- Education sector
- Editorials
- Cultural dissemination

#### CONTACT



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Madrid



#### ABOUT US

Research on the conquest and colonization of America paying special attention to the comparison between the north and south of the continent.

#### RESEARCH LINES

Comparative analysis between the conquest and colonization of the south and north of the American continent, taking into consideration the texts of the most representative authors of political, philosophical, historical and scientific thought.

#### OFFERED SERVICES

Elaboration of articles and reports about America from the perspective of philosophical, political and scientific thought.

#### MARKETABLE RESULTS







Universidad  
de Alcalá



## SPANISH LANGUAGE TEACHING FOR CHILDREN AND ADOLESCENTS

Code  
614

### ELENYA

#### RESEARCH AREA

Technological Sciences,  
Human Sciences

#### COORDINATOR

María del Carmen Fernández  
López

#### KEY WORDS

Language acquisition,  
Language learning,  
Communicative  
competence, Issues in  
language learning, Corpus  
linguistics, Spanish as a  
foreign language (SFL),  
School contexts

#### AIM

- Faculties and training centers for teachers and language teachers
- Faculties and Postgraduate courses for training Spanish teachers

#### CONTACT



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Comunicación y  
Documentación  
Edificio Filosofía y Letras  
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Alcalá de Henares  
Madrid



### ABOUT US

This research team aims at developing the communicative competences of children and adolescents in their mother tongue as well as their foreign language in school contexts. On the one hand, research takes a multidisciplinary approach to both theory and methodology. On the other hand, it takes into account the observation and analysis of real language use in school contexts. In this way, language acquisition and learning processes beginning at an early age can be studied and made known

### RESEARCH LINES

- Language acquisition.
- Language in children.
- The development of communicative competence.
- Mother tongue learning and teaching.
- Learning and teaching of Spanish as a foreign language.
- Issues in language learning and alterations of speech.
- Corpus linguistics.
- Contrastive linguistics and error analysis.
- Educational linguistics.
- Training of teachers of Spanish as a foreign language.
- The teaching of Social Sciences.

### OFFERED SERVICES

- The making of language corpuses reflecting school contexts in Spanish.
- The realization of studies on language learning and acquisition, and on the development of communicative competence.
- The design of materials for the teaching of Spanish as a mother tongue.
- The design of materials for Spanish as a foreign language.
- The collection of bibliography and resources for teacher training.

### MARKETABLE RESULTS





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## HISTORY AND DIVULGATION OF BIOLOGICAL HEALTH SCIENCES

Code  
677

### HISCIBIO

#### RESEARCH AREA

Human Sciences  
Social Sciences

#### COORDINATOR

Alberto Gomis Blanco

#### KEY WORDS

History of Science, History of Medicine, History of Pharmacy, History of Obstetrics, History of Biology, History of Nursing

#### CONTACT



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Madrid



### ABOUT US

Our research group «History and Divulcation of Biological and Health Sciences » was founded six years ago (2013). The four members of the group belong to different fields of knowledge such as Biology, Pharmacy, History, Nursing and Midwifery and Documentary Sciences that enrich our understanding of the past. We are committed to disseminate the importance of Human Sciences in the training of Healthcare professionals.

### RESEARCH LINES

- Food and medicine in the Navarre kingdom during the Middle Ages and the Renaissance.
- Evolutionism in Spain.
- History of pharmaceutical industry.
- History of obstetrics, midwives and childbirth care.
- History of Bio-sanitary Sciences in contemporary Spain (Biology, Pharmacy, Midwifery, Nursing, Medicine).
- History of healthcare professions.
- Lexicography on food and medical issues in the Navarre Kingdom throughout the Middle Ages and the Renaissance.

### OFFERED SERVICES

- educational courses, seminars, conferences and organization of temporary exhibitions.

### MARKETABLE RESULTS







Universidad  
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## READING, WRITING AND LITERACY

Code  
653

### LEA-SIECE

#### RESEARCH AREA

Human Sciences  
Social Sciences

#### COORDINATOR

Antonio Castillo Gómez  
Verónica Sierra Blas

#### KEY WORDS

Written Culture and Society, Personal Writings, The Display of Writing, Writing and Popular Memory, Written Culture and Education, Women and Written Culture, Books and Reading, Written Patrimony, Personal Archives

#### AIM

- General and specialized public interested in History and the Humanities
- Publishers and other cultural and creative industries
- The press and other media Archives, libraries and museums
- Centers of learning

#### CONTACT



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Madrid



GRUPO DE INVESTIGACIÓN  
LECTURA, ESCRITURA Y ALFABETIZACIÓN  
UNIVERSIDAD DE ALCALÁ



SEMINARIO INTERDISCIPLINAR  
DE ESTUDIOS SOBRE  
CULTURA ESCRITA  
UNIVERSIDAD DE ALCALÁ



## ABOUT US

The LEA group focuses its research on the Social History of Written Culture. This subdiscipline studies various past and present societies by focusing on the uses and functions different historical periods assign to reading and writing in the public as well as the private spheres. Within these coordinates our group will focus mainly on the production, transmission, and preservation of all types of written sources (official documents, books and pamphlets, letters, memoirs, diaries, inscriptions, graffiti, etc. from the later Middle Ages to the present (15th-21st centuries). Special attention will be devoted to those sources produced by or directed toward the more marginal sectors from a social and historiographic point of view, such as the lower classes, children, and women.

All our research, teaching, and outreach activities will be channeled through our Interdisciplinary Seminar for the Study of Written Culture (SIECE), founded in 2004, which constitutes a privileged space for scientific interchange and the training of our team and its collaborators.

## RESEARCH LINES

- Personal Writing (correspondence, memoirs, diaries)
- Publicly Displayed Writing
- Writing, Memory and Archives of Common People
- Gender and Written Culture
- Writing by Children and Students
- Literacy and Education
- Writing and Cultures regarding Death
- Book History and the History of Reading
- Written Patrimony and Museum Studies
- Emotional Communities and Reading/Writing

## OFFERED SERVICES

- Academic publications based on research by group members.
- Organization of high-level conferences, seminars and academic events.
- Cultural Management and promotion of research diffusion (exhibitions; publication of books, journals, and catalogues; programs to encourage reading and writing; cultural meetings; contests and prizes; school workshops; guided visits, etc.)
- Scientific advice (exhibitions, cinema, television, social networks)

## MARKETABLE RESULTS





Universidad  
de Alcalá



## GENDER EQUALITY

Code  
607

**GIIG**

### RESEARCH AREA

Human Sciences  
Social Sciences

### COORDINATOR

M. Isabel Garrido Gómez

### KEY WORDS

Woman,  
Equality,  
Non-discrimination

### AIM

- Public administrations, Associations, NGOs and NGDOs, companies, citizens in general.

### CONTACT



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## ABOUT US

Our research group “Study and Research Centre for Gender Equality” was founded seven years ago (2012) and, for the time being, it's the first and the only one devoted to this subject until now at the University of Alcalá. In the meantime, we have achieved our initial objectives: to consolidate the gender studies in our university and to carry on activities for the transfer of knowledge to the students and to the public, both specialized and general.

In this sense, ever since its foundation, the research group has progressed quantitatively and qualitatively. We constitute a multidisciplinary group: its members belong to different fields of knowledge such as Legal Sciences, History of Science, Philosophy, Sociology and Education. This composition means that we have several lines of research and any topic can be addressed from different perspectives providing a greater social impact.

Despite the fact that we have already accomplished our initial goals, we're committed to moving forward. Even though equality between women and men is often taken for granted, assuming that women and men are equal before the law, this situation is far from reality.

In short, these issues and many others related to violations of human rights, equality and non-discrimination show the need for further research to achieve real and effective equality of rights between genders. Our group also contributes to positioning Spanish universities closer to the world's most prestigious educational systems in which gender studies are a regular field of research.

## RESEARCH LINES

- Anti-gender discrimination law.
- Women's reproductive and sexual health rights and obstetric violence.
- Gender stereotypes.
- History of women in science.
- Non-sexist language.
- Feminist movements.
- Gender violence.

## OFFERED SERVICES

- Research on international, European, comparative and national anti-discrimination law to the Public administrations, Associations, NGOs and NGDOs, companies, and citizens in general.

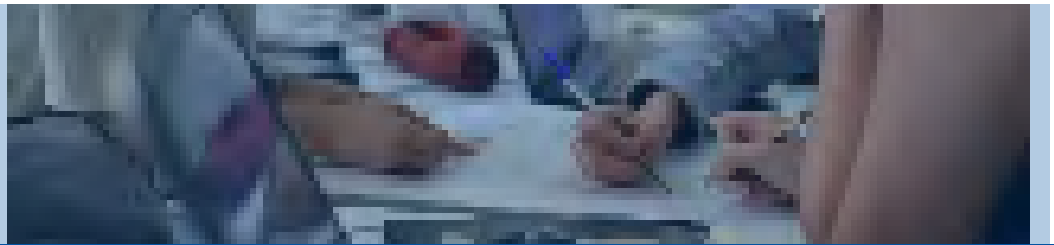
## MARKETABLE RESULTS







Universidad  
de Alcalá



## LANGUAGE AND EDUCATION

Code  
636

### LanEd

#### RESEARCH AREA

Social Sciences  
Human Sciences

#### COORDINATOR

Ana María Halbach

#### KEY WORDS

CLIL and bilingual  
education,  
Foreign language teaching,  
Teaching approaches,  
Teacher training and  
education

#### AIM

- Schools
- Textbook publishers
- Educational administrations

#### CONTACT



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28801, Alcalá de Henares,  
Madrid



### ABOUT US

The work done by the research group “Language and Education” originates in the recognition, first formulated by Lev Vygotsky, that the development of language and thought are inseparable. Language gives access to knowledge and at the same time structures it and allows it to be communicated. This explains why fostering the development of language is crucial for gaining access to knowledge, developing understandings and becoming a full member of society.

Our aim lies in the development of teaching approaches that foster the development of literacy in its widest sense in all the languages students have at their disposal (languages of the curriculum, but also of the home, the community, etc.) both in linguistic and non-linguistic subjects in the curriculum. The development of this methodological innovation is firmly based in research and validated by it through evaluative studies of classroom applications. Through this process, the researchers in this group gain the necessary expertise to develop, implement and guide the implementation of foreign language and CLIL programs.

### RESEARCH LINES

- Literacy development
- Language development in bilingual and multilingual speakers
- CLIL and bilingual education
- Foreign language teaching
- Applied linguistics
- Methodology of literary text analysis and interpretation

### OFFERED SERVICES

- Pedagogical advice for schools, publishers and educational administrations
- Advice for parents
- Educational research
- Teacher training and education

### MARKETABLE RESULTS





Universidad  
de Alcalá



## LINGUISTICS OF SPACIAL AND SOCIAL VARIATION

Code  
621

### LIVARES

#### RESEARCH AREA

Human Sciences  
Social Sciences

#### COORDINATOR

Ana María Cestero Mancera

#### KEYWORDS

Sociolinguistics  
Linguistic geography  
Pragmatics and conversation analysis  
Bilingualism and contact languages  
Non-verbal communication  
Applied linguistics for teaching Spanish as a foreign language

#### AIM

- Language Centers
- Editorial Houses
- Language and Communication Services
- Cultural Centers
- Social Services
- Spanish Language Academies
- Public Services

#### CONTACT



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### ABOUT US

LIVARES is a research team interested in areas such as the following:

- Study of the Spanish language, mainly in its oral development and from an applied perspective.
- Analysis of the language uses in its geographical, social and situational contexts.
- Analysis of the Spanish varieties.
- Linguistics applied to the fields of lexicography and terminology, language acquisition, and social communication.
- Study of language contact and its linguistic, educational and social consequences.

LIVARES research is based on a multidisciplinary theoretical and methodological approach. It seeks a systematic insight into the use of language and, therefore, the study and understanding of the functioning of human communication.

### RESEARCH LINES

- Sociolinguistics
- Linguistic geography
- Pragmatics and conversation analysis
- Bilingualism and contact languages
- Non-verbal communication
- Applied linguistics for teaching Spanish as a foreign language
- Lexicology and lexicography
- Language and immigration

### OFFERED SERVICES

- Edit and study documents
- Writing dictionaries
- Transcribing recordings
- Linguistics consultations

### MARKETABLE RESULTS







Universidad  
de Alcalá



## SOCIETY AND GEOGRAPHY OF MAGHREB

Code  
775

### MASYG

#### RESEARCH AREA

Social Sciences  
Human Sciences

#### COORDINATOR

Helena de Felipe

#### KEY WORDS

North Africa, Maghreb,  
Historiography, Population,  
Geography, Mobility,  
Digital humanities,  
Amazigh

#### CONTACT



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Madrid



#### ABOUT US

The MASYG research group aims to explore the relationship between population and geography in North Africa, in what is now the Maghreb. The group leads from an indispensably multidisciplinary perspective and proposes the conjunction of several fields: Arabic and Islamic studies, Amazigh studies, geography, history and Greek and Latin philology. The chronological space in which this research takes place is necessarily extensive, from classical antiquity until our current era, thus highlighting a diachronic vision of social and historical processes in North Africa and its interweaving with the geographical context. This group adds to its research procedures from the digital humanities field.

#### RESEARCH LINES

- North African territory from a geographic perspective: physical factors, landscape, flora and production
- North African historiography and texts (several corpus and languages, from classical antiquity to our current era)
- North African onomastic, ethnonymy and toponymy
- Relationship between the North African population and its territory: distribution, settlements, mobility, productive systems, changes of the geographical context, territorial planning and management of natural resources
- Diachronic relationship of the North African population with other territories: the Mediterranean basin, sub-Saharan Africa and others
- Digital Humanities

#### OFFERED SERVICES

- Dissemination of historical, linguistic, geographical and physiographic knowledge regarding North Africa.
- Dissemination of the Amazigh language and culture

#### MARKETABLE RESULTS





Universidad  
de Alcalá



## INTERDISCIPLINARY CULTURAL STUDIES ABOUT THE UNITED STATES

Code  
840

### AMICUSS

#### RESEARCH AREA

Human Sciences  
Social Sciences

#### COORDINATOR

Julio Cañero Serrano

#### KEY WORDS

Spain-United States links,  
Cultural Studies,  
Transatlantic Relations,  
United States, Spain, North  
America, International  
Relations

#### AIM

- International organizations and institutions
- National institutions (Spain and USA)
- Organizations and institutions interested in promoting the Spanish image in the United States
- Graduate and post-graduate students interested in educational and cultural programs in the United States

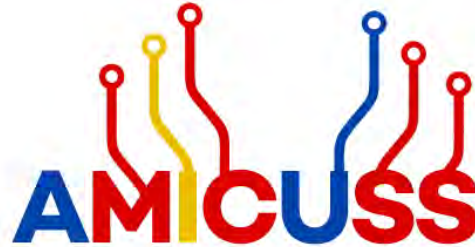
#### CONTACT



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AMERICAN INTERDISCIPLINARY CULTURAL STUDIES

### ABOUT US

The aim of this research group is to establish links between Spain and the United States from social and cultural perspectives: linguistic and historical links, from an educational and cultural programs-based approach; mobility between the two countries contributing to the establishment of highly culture-influenced knowledge, support, and leadership networks; diplomatic relations; mutual social and cultural influence from a Cultural Studies perspective; as well as the collaboration with the Science and Technology fields

### RESEARCH LINES

- Cultural Studies
- International Relations
- History of International Relations
- Transatlantic Relations
- Comparative History
- Comparative Literature
- History of the United States
- Spanish Presence in the United States
- American Culture

### OFFERED SERVICES

- International Conference on the Historical Links between Spain and North America. In collaboration with the City College of New York – Division of Interdisciplinary Studies and the Instituto Cervantes of New York. Annual basis. New York and Alcalá de Henares.
- Seminar on the Hispanic-American Relations. In collaboration with internationally prestigious institutions such as Fundación Consejo España-Estados Unidos, United States Embassy in Spain, Universidad Complutense de Madrid, and Casa de América (Madrid).
- Publications in the Biblioteca Benjamin Franklin collection of the Instituto Franklin-UAH as well as in publishing houses such as Catarata, or in collaboration with the CISAN (Centro de investigaciones sobre América del Norte) of the Universidad Nacional Autónoma de México.

### MARKETABLE RESULTS







Universidad  
de Alcalá

# Technological and experimental Sciences

Listado grupos de investigación UAH

- SPACE AND ASTROPARTICLE
- EVOLUTIONARY BIOACOUSTICS AND PALEOANTHROLOGY
- ECO-FUTURING, DESIGN LAB FOR THE GREEN CITY
- FOREST ECOLOGY AND RESTORATION
- CLIMATE PHYSICS
- PHOTONICS ENGINEERING
- SPACE RESEARCH
- DEVELOPMENT OF COMPLEX SOFTWARE
- ENVIRONMENT AND BIOPRODUCTS
- SPACE WEATHER
- ARQUICLECTURAL HERITAGE AND SUSTAINABLE ARCHITECTURE
- RADIATION AND SENSING
- MECHANICAL, ELECTRICAL AND THERMAL TECHNOLOGIES
- ENVIRONMENTAL REMOTE SENSING
- SYMBOLIC AND NUMERIC ALGORITHMS AND APPLICATIONS TO CURVES AND SURFACES



Universidad  
de Alcalá



## PHOTONICS ENGINEERING

Code  
695

## GRIFO

### RESEARCH AREA

Experimental Sciences,  
Technological Sciences

### COORDINATOR

Miguel González Herráez

### AIM

- Structural health sensors for civil works.
- Design and optimization of semiconductor devices for solar energy.
- SPR-based chemical sensors.
- Plastic fiber sensors for ionizing radiation detection.
- Long-range sensors for seismic studies
- Thermometers high sensitivity and scope

### CONTACT



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Campus Universitario  
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## ABOUT US

The Photonic Engineering Group carries out its research in the following lines: Fiber optic sensors. Development and implementation of fiber optic sensors applied to the detection of polluting substances, based on the spectral interrogation of in-line transducers with resonant coupling of surface plasmons. Control of the speed of light. Control of the information propagation speed in fiber optic systems, compatible with optical information storage and computing systems. For this, non-linear optics techniques such as Stimulated Brillouin Scattering are used for the development of completely optical communication networks. Optical properties of semiconductors. Theoretical study of the light-semiconductor interaction (linear and non-linear behavior). Deposition of metals and semiconductors via magnetron sputtering. Design, optical and electrical characterization of devices based on III-nitride semiconductors for their application in optical communications and photodetectors. Solar cell development.

## RESEARCH LINES

- Controlling the speed of light
- Thin sheets and ceramics
- Multiferroic materials for energy harvesting systems
- Optical properties of semiconductors
- Fiber optic sensors
- Nanostructured surfaces for solar cell optimization
- III-V semiconductor devices for solar energy applications

## OFFERED SERVICES

- Design, manufacture and characterization of sensors based on different optical transduction methods, using plasmonics concepts applied to the identification and measurement of contaminant concentration
- Use of non-linear techniques for the development of distributed sensors of physical parameters
- Thin film deposition by magnetron RF and DC sputtering
- Material simulation with the finite element method
- Design and characterization of materials and devices based on III-nitride semiconductors"

## MARKETABLE RESULTS







Universidad  
de Alcalá



## SPACE WEATHER

Code  
569

## SWE

### RESEARCH AREA

Ciencias Tecnológicas  
Ciencias Experimentales

### COORDINATOR

Consuelo Cid Tortuero

### KEY WORDS

Meteorología espacial,  
Heliofísica, Interacción  
Sol-Tierra, Física solar,  
Indices geomagnéticos,  
Tormenta geomagnética

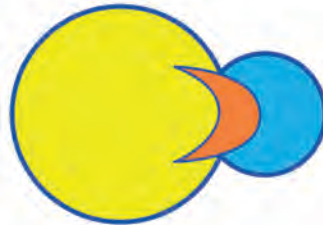
### AIM

- Compañías eléctricas
- Compañías de comunicaciones
- Administración central (Protección civil, Infraestructuras críticas)

### CONTACT



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Madrid



**SWE** GROUP  
SPACE WEATHER

## ABOUT US

La investigación de la actividad solar y su influencia en el entorno terrestre, así como el desarrollo de productos de monitorización y predicción.

## RESEARCH LINES

- Heliofísica. Interacción Sol-Tierra
- Meteorología espacial

## OFFERED SERVICES

- Asesoramiento sobre meteorología espacial
- Soluciones técnicas para los sectores afectados

## MARKETABLE RESULTS





Universidad  
de Alcalá



## RADIATION AND SENSING

Code  
828

**RSG**

### RESEARCH AREA

Technological Sciences  
Experimental Sciences

### COORDINATOR

Pablo Luis López Espí

### KEY WORDS

Microwave, Antennas,  
Sensing, Electromagnetic  
pollution

### AIM

- ICT companies involved in the development of new antennas, microwave devices and sensors
- Companies and Administrations interested in the application of ICT to the improvement of medical image diagnosis
- Companies and Administrations involved in electromagnetic pollution measurement and control

### CONTACT



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Dpto. Teoría de la Señal y  
Comunic.

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600, 28805  
Alcalá de Henares,  
Madrid



## ABOUT US

Radiation and sensing research group is focused on the design of antennas, microwave devices and sensors. Our group has wide experience in electromagnetic simulation and modern optimization techniques in CST and HFSS for more than 15 years. We have design, prototype manufacturing and measurement capabilities for PCB up to 20 GHz. We have also experience in surface measurement systems using laser techniques. We have been involved in electromagnetic pollution measurement for more than 20 years.

## RESEARCH LINES

- Design, optimization and characterization of RF and microwave devices and antennas
- Information and communications technology (ICT) applied to the design of low cost measurement devices and systems
- Electromagnetic Pollution measurement and research
- Image techniques applied to diagnosis assistance and segmentation.
- Energy harvesting and autonomous sensing systems

## OFFERED SERVICES

- Design of RF and microwaves devices and antennas
- Design of low cost sensing devices
- Measurement of electromagnetic pollution
- Application of image processing techniques to medical diagnosis and classification

## MARKETABLE RESULTS







Universidad  
de Alcalá



## ARCHITECTURAL HERITAGE AND SUSTAINABLE ARCHITECTURE

Code  
689

**SBH**

### RESEARCH AREA

Experimental Sciences  
Technological Sciences

### COORDINATOR

Pilar Chías Navarro

### KEY WORDS

Passivhaus, Hospital  
projects, Impact  
assessment, Efficient  
Architecture

### AIM

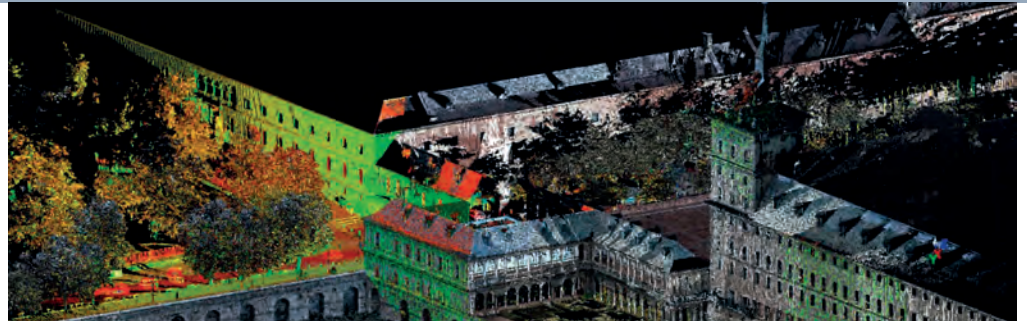
- Public administrations and private entities related to the Heritage or health

### CONTACT



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Colegio Convento Carmen  
Calzado (Arquit)  
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Madrid



## ABOUT US

We are a transdisciplinary research team, having achieved for more than two decades a high performance development in the fields of Cultural Heritage documentation and renovation, and of Passivhaus design and project. The study of ancient constructions and historic landscapes, as well as the design of healthcare buildings are among our key strengths. Our researches are financed both by public-sector customers in competitive calls, and by private clients.

## RESEARCH LINES

- Intervention in the Built Heritage
- Sustainable and efficient construction and management
- Sustainable urban design

## OFFERED SERVICES

- Environmental impact assessment
- Sustainable Hospital and Healthcare facilities projects
- Sustainable urban design
- Built Heritage documentation and assessment
- Efficient building renovation and management (BIM)
- Territorial and landscape studies and design projects
- Passivhaus building projects

## MARKETABLE RESULTS





Universidad  
de Alcalá



## SYMBOLIC AND NUMERIC ALGORITHMS AND APPLICATIONS TO CURVES AND SURFACES

Código  
683

### ASYNACS

#### RESEARCH AREA

Experimental Sciences  
Technological Sciences

#### COORDINATOR

Sonia Pérez Díaz

#### KEYWORDS

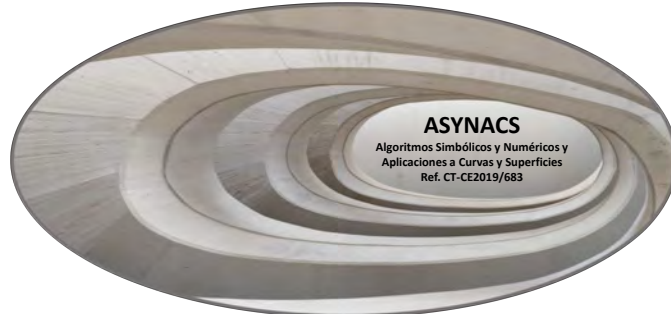
Algorithms,  
Symbolic,  
Numerical,  
Geometry,  
Algebra,  
Interpolation,  
Geometric design

#### CONTACT



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Madrid



#### OBJETCT/AIM

The fundamental objective of the group is the study of mathematical problems from a symbolic or a numerical-symbolic algorithmic approach, with special emphasis on geometric issues as well as their applications. It is also an objective of the group to create a link between teachers in the Mathematics department that allows knowing what research is being done and fosters mutual collaboration as well as giving visibility to that research in as many forums as possible (departmental, university, academic, scientific).

#### LINES OF RESEARCH

- Numerical linear algebra
- Algorithms for curves and surfaces and applications
- Applications in Computer Aided Geometric Design (CAGD)
- Development of approximate algorithms
- Development of numerical algorithms
- Development of symbolic algorithms
- Effective algebraic geometry
- Interpolation
- Curve and surface theory

#### SERVICES OFFERED

- Development of mathematical and algorithmic foundations as well as implementations in mathematical software

#### MARKETABLE RESULTS







# Humans Technological

- ARCHITECTURE, HISTORY, CITY, AND LANDSCAPE
- SCIENCES IN ARCHAEOLOGY: INNOVATIVE RESOURCES IN ARCHITECTURE, BOTANICS, GEOLOGY, MEDICINE AND CHEMISTRY FOR RECOVERING THE PAST
- THE TEACHING OF THE SPANISH LANGUAGE TO CHILDREN AND ADOLESCENTS
- IMAGE, METRICS & ARCHITECTURE
- IMAGES, WORDS AND IDEAS
- CHEMICAL AND ENVIRONMENTAL ENGINEERING
- ARCHITECTURAL PROJECTS AND BUILDING MATERIALS



Universidad  
de Alcalá



## ARCHITECTURE, HISTORY, CITY AND LANDSCAPE

Code  
736

### ARHCIPAI

#### RESEARCH AREA

Human Sciences,  
Technological Sciences

#### COORDINATOR

M. Ángeles Layuno Rosas

#### KEYWORDS

Theory and history of  
architecture, Historical  
heritage, Cultural landscap-  
es, Urban regeneration,  
Museography

#### AIM

- Public administrations and organizations, companies and architecture and urban planning studios
- Heritage Associations
- Cultural enterprises

#### CONTACT



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Madrid



GRUPO DE INVESTIGACIÓN

**ARHCIPAI**

ARQUITECTURA HISTORIA CIUDAD PAISAJE

### ABOUT US

The ARHCIPAI group is established as a cross-disciplinary and interdisciplinary research laboratory on architecture, the city and the landscape, as it is based on certain parameters: the operational value of history and architectural theory in contemporary interventions, both at a functional as a morphological levels, and both in new planned constructions and in the recovery operations of the historical architecture and cities. In this sense, the aim is to enhance the dialogue and interaction between past and present in the transformation processes of the built reality of any period, applying this theoretical framework to plans and projects for urban and architectural rehabilitation, programming and management of cultural institutions, actions and artistic representations, among others. The study of the architecture and the city implies their consideration as evolutionary organisms in which it can be critically analyzed the relationships between theory, history, project, heritage and landscape, in a holistic way and seeking the dialogue between disciplines, agents or manifestations that contribute to the ideological and formal construction of the urban landscapes.

### RESEARCH LINES

- Theory and History of Architecture and the City
- Heritage conservation of architecture and cities (also contemporary)
- Tourism and heritage
- Historical urban landscape
- Conservation and reuse of industrial architecture and heritage
- Industrial landscapes regeneration
- Studies on urban public spaces
- Museums and other cultural institutions architecture
- Cultural Management
- Urban and territorial museography
- New technologies applied to the representation and reconstruction of the city and the historical landscape

### OFFERED SERVICES

- Advice and direction of master plans, special plans, urban planning
- Advice and collaboration with public administrations and companies in the field of conservation and intervention in the architectural, urban and landscape heritage
- Reports, previous studies and intervention projects in the historical architecture and cities
- Advice and preparation of museum projects. Studies and projects based on GIS

### MARKETABLE RESULTS







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de Alcalá



## SCIENCES IN ARCHEOLOGY: INNOVATIVE RESOURCES IN ARCHITECTURE, BOTANICS, GEOLOGY, MEDICINE AND CHEMISTRY FOR THE RECOVERY OF THE PAST

Code  
803

### CIARQ

#### RESEARCH AERA

Human Sciences  
Technological Sciences

#### COORDINATOR

Antonio Javier Morales  
Rondán

#### KEY WORDS

Egyptology, Archaeology,  
Sciences,  
Forensic anthropology,  
Architecture, Heritage, 3D,  
Geology, Chemistry,  
Palynology, Conservation,  
Excavation, Epigraphy

#### CONTACT



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Alcalá de Henares,  
Madrid



CIARQ

Ciencias en la Arqueología  
Grupo de investigación

### ABOUT US

The research group CIARQ aims at combining various research lines in a multi-disciplinary and international effort for the development of our archaeological, epigraphic, and conservation works in Egypt. This international group established at the University of Alcalá seeks for the promotion of the scientific results and the development of several lines of investigation regarding the ancient Egyptian necropolises in the sites of Deir el-Bahari and Asasif (Luxor, Egypt). In the last years (2017-2018), CIARQ has demonstrated to constitute a fundamental support for the organization of human and technological resources in the archaeological work by the University of Alcalá.

### RESEARCH LINES

- History and archaeology of ancient Egypt
- Geology, edaphology, botanics, chemistry and palynology in Egypt
- Architectural and conservation studies for the Egyptian heritage
- Forensic medicine and anthropology in Egypt

### OFFERED SERVICES

- Promotion of science
- Research
- International collaboration

### MARKETABLE RESULTS





Universidad  
de Alcalá



## IMAGES, WORDS AND IDEAS

Code  
599

### GIPI

#### RESEARCH AREA

Social Sciences  
Technological Sciences

#### COORDINATOR

M. Pilar Lacasa Díaz  
Rut Martínez Borda

#### KEYWORDS

Children, Adolescence,  
Digital, Virtual learning,  
Activism, Storytelling,  
Culture, Digital  
Citizenships,  
Entertainment

#### AIM

- ICT Companies
- Cultural industries
- Institutional Educations

#### CONTACT



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Dpto. Filología,  
Comunicación y  
Documentación  
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Madrid



### ABOUT US

The research group Images, Words, and Ideas explores young people and children everyday activities when interacting with digital media, especially social networks and video games. Communication contexts and entertainment environments inter-twine in our work, supporting responsible citizenship.

### RESEARCH LINES

- Digital kids and multimodal literacies
- Video games as cultural tools
- Fandom and social activism
- Transmedia storytelling

### OFFERED SERVICES

- **CONSULTING AND REPORTS.** We focus on children and young people online and offline practices. GIPI aims to coordinate and stimulate investigation into the way children use new media looking for exploring social challenges about the use of mobile and digital tools.
- **SOCIAL MEDIA.** We analyze social media, helping companies and institutions to grow their young audiences and develop mobile strategies.
- **RAINING.** We provide hands-on, onsite workshops and coaching in writing, video, infographics, civic engagement, and multimodal communications.
- **CUSTOM CONTENT.** We support the process of creating better contents for young audiences. We produce it for you, in multiple formats.
- **VIDEO AND MULTIMEDIA.** We make video productions, train people, asses projects, support teams.

### MARKETABLE RESULTS







Universidad  
de Alcalá

Listado grupos de investigación UAH

# Experimental and Health Sciences

- ADENOCARCINOMA & METASTASIS
- CANCER DRUG RESISTANCE
- BIOANALYSIS AND BIOSENSORS
- BIODIAGNOSTICS AND METABOLOMICS
- BIOSENSING AND SUPRAMOLECULAR CHEMISTRY
- MICROBIAL AND PARASITIC BIOTECHNOLOGY AND ECOLOGY
- CANCERS OF EPITHELIAL ORIGIN
- CELL DAMAGE ASSOCIATED WITH SENEESCENCE a
- DEVELOPMENT AND APPLICATION OF MOLECULAR MARKERS IN PLANTS
- DIABETES, OBESITY AND HUMAN REPRODUCTION
- DESIGN, INTERACTION AND SYNTHESIS OF BIOACTIVE COMPOUNDS
- HUMAN DIVERSITY AND APPLIED ANTHROPOLOGY
- GLOBAL CHANGE ECOLOGY AND EVOLUTION
- ORGANIC ELECTROSYNTHESIS
- MICROBIAL DEGRADATION OF LIGNOCELLULOSE: TECHNOLOGICAL APPLICATIONS
- HETEROBETAINES
- TRASLATIONAL RESEARCH IN CHRONIC DISEASES ASSOCIATED TO AGING AND KIDNEY DISEASE
- MECHANISM OF ACTION OF BIOLOGICALLY ACTIVE COMPOUNDS
- DENDRITIC NANOSYSTEMS FOR BIOMEDICAL APPLICATIONS
- BIOLOGICAL CHEMISTRY



Universidad  
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## ADENOCARCINOMA & METASTASIS

Code  
767

### Adenometastasis

#### RESEARCH AREA

Experimental Sciences  
Health Sciences

#### COORDINATOR

Benito Fraile Laiz

#### KEY WORDS

Adenocarcinoma,  
Angiogenesis,  
Allergology

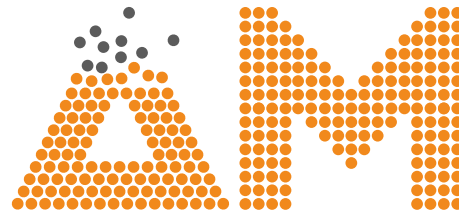
#### AIM

- Scientific investigation
- Diagnosis

#### CONTACT



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Biotecnología  
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## ADENOCARCINOMA & METASTASIS

### ABOUT US

Research in the cell biology, diagnosis and prognosis of hormone-dependent glandular cancer.

### RESEARCH LINES

- Allergology
- Angiogenesis in cancer
- Cytokines and adenocarcinoma
- Tumor stem cells
- Diagnostic and prognostic factors of adenocarcinoma
- Transduction pathways in cancer

### OFFERED SERVICES

- Preparation of biological samples for observation under the light microscope
- Preparation of samples for transmission and scanning electron microscopy
- Image analysis in optical and electron microscopy
- In situ hybridization of nucleic acids
- Cell cultures

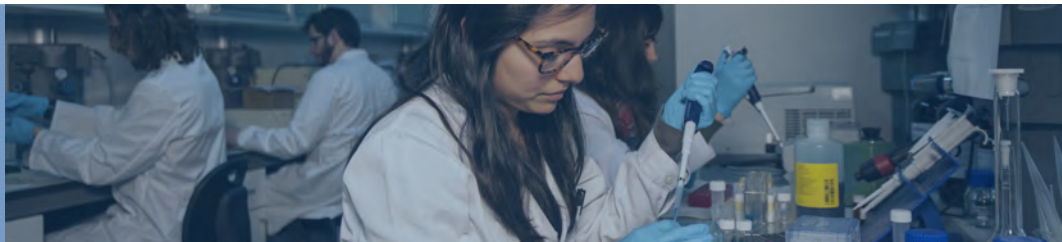
### MARKETABLE RESULTS







Universidad  
de Alcalá



## BIOSENSING AND SUPRAMOLECULAR CHEMISTRY

Code  
733

### BIOENCHEM

#### RESEARCH AREA

Experimental Sciences  
Health Sciences

#### COORDINATOR

M. Paz San Andrés Lledó

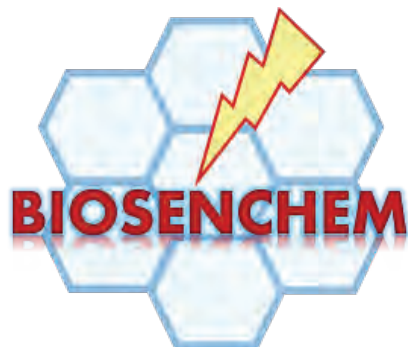
#### KEY WORDS

Nanomaterials, Graphene,  
(Bio) surfactants, Bioactive  
compounds, Molecular  
fluorescence, Separation  
methods

#### CONTACT



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Alcalá de Henares,  
Madrid



#### ABOUT US

The group works in the Analytical Chemistry area of the Analytical Chemistry, Physical Chemistry and Chemical Engineering department.

#### RESEARCH LINES

- Carbon nanomaterial dispersion in organized media: nanomaterial-(bio) surfactant and nanomaterial-bioactive compound interactions.
- Nanomaterials and (bio) surfactants applications in separation methods.
- Chemical sensors: detection and quantification of (bio) analytes by molecular fluorescence techniques.

#### OFFERED SERVICES

- Consulting and collaboration with companies.

#### MARKTABLE RESULTS





Universidad  
de Alcalá



## CANCERS OF EPITHELIAL ORIGIN

Código  
732

### CELLO

#### APPLICATION AREA

Health Science  
Experimental Science

#### RESPONSIBLE

Ana María Bajo Chueca

#### KEYWORDS

Biomarkers, Diagnosis,  
Prognosis, Prostate cancer,  
Breast cancer, Epithelial  
cancers, Therapeutic  
strategies

#### AIM

- Research training: Training of science students (Bachelor and Postgraduate) for their incorporation into the labour market
- Disclosure: Society

#### CONTACT



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Dpto. Biología de Sistemas  
Facultad de Medicina y  
Ciencias de la Salud,  
Campus Científico-Tecnológico,  
Universidad de Alcalá,  
28871 Alcalá de Henares,  
Madrid



### ABOUT US

It is a priority in health to find ideal biomarkers in order to establish an adequate diagnosis and prognosis, and to guide the selection of the different therapeutic options throughout the course of the disease in cancers of epithelial origin.

### RESEARCH LINES

- Study of biomarkers in the diagnosis and prognosis of cancers of epithelial origin
- Study of therapeutic strategies in cancers of epithelial origin

### OFFERED SERVICES

- Research: They are related to the techniques previously mentioned
- Training: Bachelor Thesis, Master thesis, Doctoral thesis, Professional practical work

### MARKETABLE RESULTS







Universidad  
de Alcalá



## MICROBIAL AND PARASITIC BIOTECHNOLOGY AND ECOLOGY

Código  
582

### BIOTEMYP

#### RESEARCH AREA

Experimental Sciences  
Health Sciences

#### COORDINATOR

José L. Copa-Patiño  
Francisco J.  
Martínez-González

#### KEYWORDS

Biocidal compounds,  
Dendritic compounds,  
Microbial biofilms,  
Microbial biotechnology,  
Microbial taxonomy,  
Hemoparasites: geographical  
distribution

#### AIM

- Any type of company where microorganisms have a fundamental role

#### CONTACT



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tlf: 4663

Biomedicina y Biotecnología  
Edificio de Farmacia  
Carretera Madrid-Barcelona,  
Km 33.100, 28805  
Alcalá de Henares,  
Madrid



### ABOUT US

We are a group interested in investigating certain aspects of microorganisms and parasites and applying this knowledge in different biotechnological, environmental or health fields.

### RESEARCH LINES

- Studies on the production and biocidal effect of new synthesis molecules: dendritic compounds
- Taxonomic studies of microorganisms
- Incidence and distribution of hemoparasites in wild birds and micro-mammals

### OFFERED SERVICES

- Environmental audits of aerial, surface, final product, etc. environments in different types of industries
- Identification of microorganisms that may interest different types of industries or organisms
- Optimization of industrial processes where microorganisms or molecules produced by them have a fundamental role

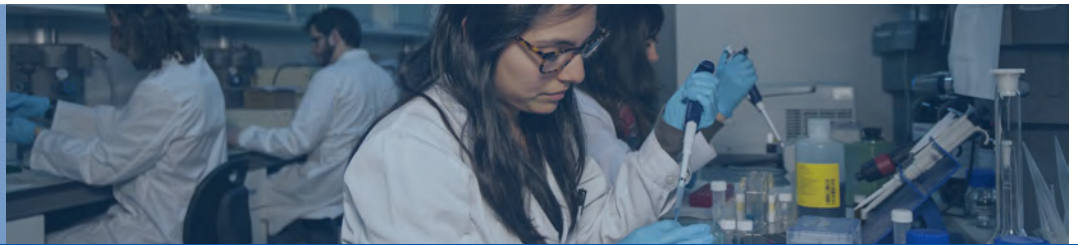
### MARKETABLE RESULTS







Universidad  
de Alcalá



## DEVELOPMENT AND APPLICATION OF MOLECULAR MARKERS IN PLANTS

Code  
748

### MARMOL

#### RESEARCH AREA

Experimental Sciences  
Health Sciences

#### COORDINATOR

Yolanda Loarce Tejada  
Juan M. González Triguero

#### KEYWORDS

Molecular markers,  
Cereals, Root System  
Architecture (RSA), FISH,  
PCRq, Plant Genetic  
Resources

#### AIM

- Agrifood Seed companies

#### CONTACT



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### ABOUT US

The objective of the group is the development of DNA molecular markers for identify those that are useful in studies to evaluate genetic diversity, genome evolution and plant breeding. Genetic diversity studies try to quantify the intraspecific variability present between cultivated species varieties or between natural populations of wild species. The diversity found among species of the same genus is used as a phylogenetic tool. The common goal in these studies are to provide information that will contribute both to a better use of plant genetic resources in plant breeding as to define the most appropriate strategies for the conservation of these resources.

### RESEARCH LINES

- Use of molecular markers in the study of plant genetic diversity
- Study of genomic evolution in the Avena genus using cytogenetic methodologies
- Development of molecular markers to identify pathogen resistance genes in oats
- Phenotyping and genetic control of the architecture of the plant root system (RSA)

### OFFERED SERVICES

- Application of experimental methods of DNA markers (RFLPs, SSRs, ISSRs, SNPs, etc) in plants
- Application of softwares for the analysis of polymorphism in natural populations or commercial varieties of plants
- Phenotyping of root architecture
- Gene expression studies in plants

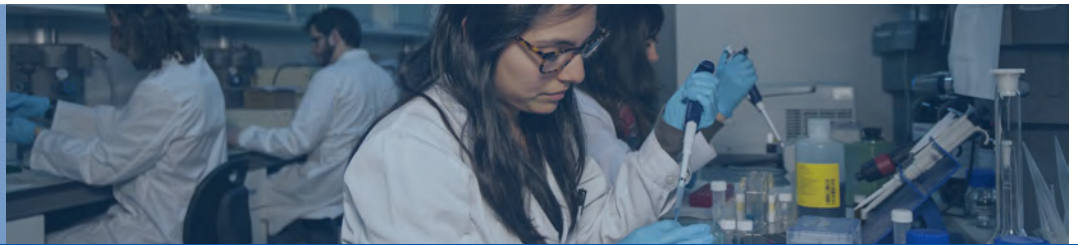
### MARKETABLE RESULTS







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## DIABETES, OBESITY & HUMAN REPRODUCTION

Code  
713

### DORH

#### RESEARCH AREA

Experimental Sciences  
Health Sciences

#### COORDINATOR

Héctor Fco. Escobar  
Morreale

#### KEY WORDS

Androgen excess,  
Diabetes, Hypogonadism,  
Obesity, Omics, Polycystic  
ovary syndrome

#### AIM

- Scientific community

#### CONTACT



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### ABOUT US

The Diabetes, Obesity & Human Reproduction research group aims to excellence in translational research in the area of gonadal dysfunction in women and men, focusing on the complex sexual dimorphism characterizing the metabolic associations of androgen excess in women and androgen deficiency in men. The group is located at Hospital Universitario Ramón y Cajal, Madrid, Spain and, aside from the University of Alcalá, participates in collaborative research institutions such as Instituto Ramón y Cajal de Investigación Sanitaria (IRYCIS, [www.irykis.org](http://www.irykis.org)) and Centro de Investigación Biomédica en Red Diabetes y Enfermedades Metabólicas asociadas (CIBERDEM, [www.ciberdem.org](http://www.ciberdem.org)).

### RESEARCH LINES

- Role of macronutrients in the postprandial hormonal, metabolic, inflammatory and oxidative stress responses in men and women
- Obesity-associated gonadal dysfunction in women and men
- Role of sex in chronic diseases of complex multifactorial aetiology (SECOMPLEX)
- Role of sex in metabolic disorders of complex multifactorial aetiology (SEXMETAB)
- Polycystic ovary syndrome and related metabolic disorders

### OFFERED SERVICES

- Consulting in clinical research
- Consulting in design of clinical studies
- Consulting in meta-analysis and clinical guidelines  
Proteomics, metabolomics, lipidomics, transcriptomics

### MARKETABLE RESULTS





Universidad  
de Alcalá



## HUMAN DIVERSITY AND APPLIED ANTHROPOLOGY

Code  
821

### DIVERAP

#### RESEARCH AREA

Health Sciences  
Experimental Sciences

#### COORDINATOR

Esperanza  
Gutiérrez Redomero

#### KEY WORDS

Anthropology,  
Anthropometry,  
Dermatoglyphic, Forensic  
Identification,  
Body composition

#### AIM

- State security forces
- Health Areas

#### CONTACT



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### ABOUT US

- Human biological variability studies
- Application of bioanthropological studies to forensic identification
- Application of bioanthropological studies to health
- Transfer of the knowledge achieved to the social groups of interest
- Collaboration with research groups and other institutions with similar objectives

### RESEARCH LINES

- Forensic Anthropology: dermatoglyphic and physiognomic identification
- Dermatoglyphic characterization as tool in the early diagnosis of pathologies
- Body composition assessment
- Biological variation in morphophysiological traits applied to biometric identification
- Biological variation in human growth, development and maturation patterns

### OFFERED SERVICES

- Advice on forensic identification through fingerprints
- Advice on physiognomic identification
- Assessment of growth, development and maturation in individuals, groups or populations
- Body composition studies in individuals, groups or populations

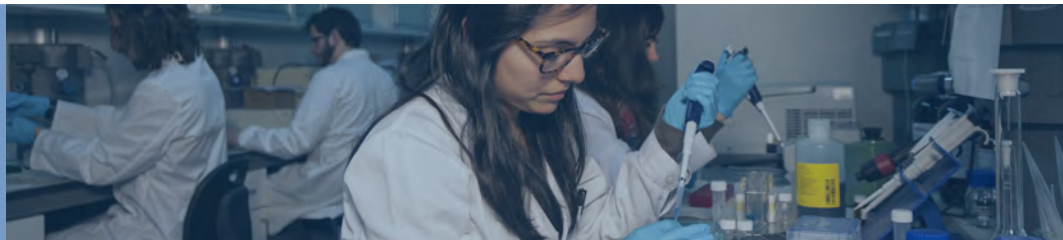
### MARKETABLE RESULTS







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de Alcalá



## DESIGN, INTERACTION AND SYNTHESIS OF BIOACTIVE COMPOUNDS

Code  
664

### DISCOBAC

#### RESEARCH AREA

Experimental Sciences  
Health Sciences

#### COORDINATORS

Lourdes Gude Rodríguez  
Eva Royo Cantabrana

#### KEY WORDS

Cancer, Alzheimer,  
Multifunctional organic  
and metallo-organic  
ligands, G-quadruplex  
DNA, RNA, Modeling and  
interaction studies

#### AIM

- Chemical sector,  
pharmaceutical and  
healthcare

#### CONTACT



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Química Inorgánica  
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### ABOUT US

We are an interdisciplinary group of professional researchers covering inorganic and organic chemistries as well as biochemistry and molecular biology related aspects, working together in the discovery of novel and enhanced theragnostic molecules with a special focus on cancer and neurodegenerative diseases.

### RESEARCH LINES

- Synthesis and interaction studies of selective G-quadruplex DNA ligands by the design of multifunctional metallo-organic molecules. Examples include carbohydrate or oligonucleotide conjugates for their use as therapeutic agents and the study of the structure-activity relationships and interactions of synthesized compounds with higher-order DNA/RNA structures.
- Design and synthesis of novel biologically active molecules using molecular modeling. Building up of three-dimensional models of receptors and ligands to study the nature and magnitude of the interatomic forces that govern their interactions.

### OFFERED SERVICES

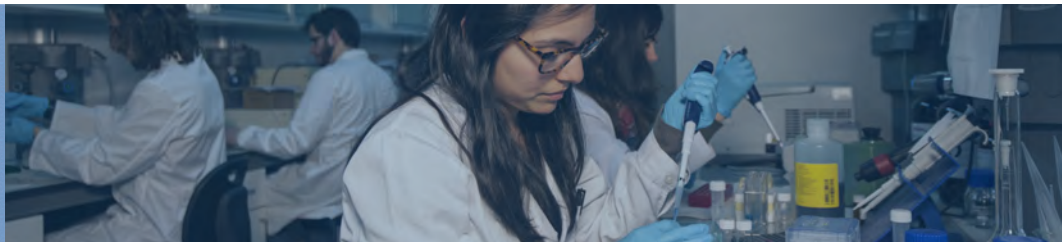
- Synthesis, characterization and reactivity studies of organic, organometallic and coordination compounds.
- Design and structural characterization of nucleic acids and/or protein ligands.
- Biomolecular interaction studies by theoretical and experimental methods, such as competition equilibrium dialysis, FRET melting assays, viscometric titrations, circular dichroism, fluorescence-based techniques, UV-visible, etc.

### MARKETABLE RESULTS





Universidad  
de Alcalá



## ORGANIC ELECTROSYNTHESIS

Code  
682

**EOS**

### RESEARCH AREA

Experimental Sciences  
Health Sciences

### COORDINATOR

María Belén Batanero  
Hernán

### KEY WORDS

Electrochemistry, Reaction  
Mechanism,  
Radical intermediates,  
ion-radical intermediates,  
Electrodes, Heterocyclic  
compounds,  
Electrogenerated bases,  
Electro-mediated (indirect)  
processes, Electrocatalysis

### AIM

- Pharmaceutical industry
- Energetic and sustainable Industry
- Perfume industry

### CONTACT



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# ORGANIC ELECTROCHEMISTRY

## ABOUT US

Synthesis and characterization of new organic compounds and reaction mechanisms, through the use of electrochemical technology.

## RESEARCH LINES

- Cathodic and anodic electrogeneration of intermediates: Carbenes in the synthesis of cyclopropanes, radicals and C-C coupling reactions
- Carbanions: Electrogenerated Bases (EGB) and their use in Heterocycles synthesis
- Paired Electrosynthesis: CO<sub>2</sub> recycling. Terpenes anodic Oxidation to perfume industry derivatives

## OFFERED SERVICES

- Gram-scale electrosynthesis of organic compounds
- Spectroscopical characterization of organic molecules with application in pharmacy or in batteries
- Electrochemical characterization of Organic electroactive compounds

## MARKETABLE RESULTS

