I. GENERAL
The Spanish National Research Council (CSIC) is recruiting Post-Doctoral candidates to collaborate in the Horizon 2020 ERC funded research project, ECHO, PI. Alberto Palloni, hosted by the Institute of Economy, Geography and Demography (IEGD), a member of the Population Europe network.

II. THE INSTITUTE OF ECONOMY, GEOGRAPHY AND DEMOGRAPHY
CSIC is the largest organization for scientific research in Spain committed to a vast multidisciplinary program that includes activities ranging from basic research to creation and application of the most advanced technological developments. It is currently ranked third among all European largest research organizations. Because of its size (more than 11,000 employees), composition and regional distribution (maintains a presence in almost all Spanish Autonomous Communities), CSIC can take on scientific challenges beyond the scope of other institutions. CSIC is composed of 120 institutes spread across the country. Of these 53 are Joint Research Units created and managed in partnership with Spanish universities and other research institutions.

Based in Madrid (Spain), the Center for Human and Social Sciences (CCHS), that includes the IEGD as one of its six research institutes, is one of the largest centers of CSIC. CCHS was created in 2007 and is known for high-profile scientific activities, the product of the contribution of more than 200 researchers working in a large number of fields in human and social sciences

Research undertaken in the Department of Population of IEGD covers a broad range of population problems including:
- family dynamics
- migration
- health and mortality
- ageing and and elderly well-being
- historical demography.

In addition to ECHO, the Department of Population of the IEGD hosts two European funded research projects:
- Methodologies and Data mining techniques for the analysis of Big Data based on Longitudinal Population and Epidemiological Registers (LONGPOP), PI: Diego Ramiro.

III. ECHO DESCRIPTION
The project ECHO (Early conditions, delayed adult effects and morbidity, disability and mortality in modern human populations) is a research project funded under the Advanced Grants program of the European Research Council. Its main goal is to conduct research on the Developmental Origins of Health and Disease (DOHaD), to understand the epigenetic mechanisms and events in individuals’ life course through which early experiences are manifested as delayed adult effects, to assess the demographic impacts on chronic illnesses, disability and mortality with particular emphasis on obesity, Type II Diabetes, and associated
conditions and, finally, to formulate and empirical test formal models of the future evolution of
these health outcomes under conditions to which modern populations are exposed.
The project, headed by Alberto Palloni, is searching for candidates with a background in at least
one of the following areas: Demography, Epidemiology, Biostatistics, Public Health and
Sociology,. The candidates should be willing and interested in joining a highly multidisciplinary
and international team.
A full description of ECHO is in the project website.

IV. RESEARCH AREAS RELEVANT FOR THE PROJECT
1. Using cohort studies, panel surveys of general as well as elderly populations to estimate
models of relations between early experiences and adult health conditions, disability and
mortality.
2. Developing and testing microsimulation models of individual life courses, including kin and
peer relations, with a focus on exposure conditions and behaviors that may impair or
improve health conditions.
3. Modeling and estimating adult health outcomes using information from epigenetic (EWAS)
and genetic (GWAS) databanks and integrating these with population models of disease,
disability and mortality.
4. Formulating models for the study of biological age and its relation to biomarkers of
physiological functioning and epigenetic and microbiome data.
5. Implementing Agent Based Models to assess effects of interventions designed to modify
conditions that predispose to obesity and T2D
6. Formulation and testing of models of the evolution of phenotypical traits that result from
plastic responses to changing environments and their ultimate consequences for patterns of
health and mortality
For more information, see ECHO website.

V. PROFILES
Candidates must have obtained their PhD (or expect to obtain their PhD) by early July 2020, and
their profile should match one of the following:
1. Demographer with training in formal demography interested in contributing to the
formulation of models of chronic disease and mortality.
2. Epidemiologist with training in genetic epidemiology and some expertise in analysis of
genomic and epigenomic data.
3. Sociologist with training in demography or public health or statistics and with strong interest
in applications of theories of Developmental Origins of Health and Disease.

VI. APPLICATIONS
Applications should be submitted by e-mail to socialecho@csic.es. These applications must
include the following documents in a zip file:
1. Curriculum Vitae.
2. Letter of interest (Max 1 page). Briefly describe the areas covered by ECHO in which the
candidates believes he/she could contribute the most.
3. Research Statement (Max 1 page). Describe ongoing and future research plans. Identify
technical skills, areas of expertise, and advanced training that you would like to receive as a
research scientist that could prepare for a future career in the field.
4. Contact information for 3 references.
5. One writing sample or publication.
The position will be open until it is filled. In order to receive full consideration, applications
should be submitted by May 31st. The short-listed candidates will be notified by mid-June and
will be invited to an on-line interview. The starting date should be no later than November
2020.
VII. CONTRACT AND REMUNERATION
The successful applicant will be offered a 3-year contract with a remuneration equivalent to (approx.) **38,000 EUR gross per year** for researchers who completed their PhD in the past two years. A candidate with additional experience should expect a remuneration of up to (approx.) **47,900 EUR gross per year**. Social Security contributions are paid by CSIC and have already been deducted from the offered salary (32.60% approx). For more information about Social Security rights in Spain, please click here.

VIII. CSIC, PROFESSIONAL CAREERS AND EQUAL OPPORTUNITIES FOR ALL
− CSIC addresses a vast array of scientific problems always deploying strong *multidisciplinary teams* and research strategies. Through its own centers and those supported in collaboration with universities and other research institutions, it offers ample room to interact with professionals and students working in academia.
− CSIC’s researchers’ profiles endow the institution with a strong *international* character and supports an *environment highly attractive* for and supportive of the scientific and professional *career development* of young or senior students, doctorates and postdoctoral fellows, technicians and managers.
− CSIC *resources* are made available for all researchers, technicians and managers. These include the access to its research *infrastructures, libraries, training and digital resources*, as well as the support by professional staff for the participation in public and private competitive calls. Twice in a year, CSIC offers in-house professional training to all its employees in a variety of topics. Moreover, CSIC encourages the participation in seminars and conferences both organized by external institutions and by its centers.
− CSIC is committed to ensure a *transparent recruitment process* that respects the principles of equality, merit and ability regulating access to public employment.
− CSIC pays special attention to *gender equality issues*. Through many policy interventions, CSIC is well-positioned and highly ranked among leading European scientific organizations in its quest to achieve and fully supports women’s participation in all stages of their scientific career.
− **Other benefits of working in CSIC:**
  o 22 working days of paid annual leave, plus 6 paid personal days (in addition to public holidays in Spain (12 days approx.)).
  o Measures to ensure work-life balance (e.g. flexible schedule in case of children or family members with special needs).
  o Employee benefits in case of disability and/or for medical, educational and/or transport expenses.
  o *Subsidies* in case of illness or maternity/paternity leave, and other paid leaves (e.g. family member’s care).
  o *Unemployment benefits* at the end of the contract, according to Spanish law.

For more information about working and living in Spain, read this guide by the Spanish State Public Employment Service.

For inquiries about the positions, please contact alberto.palloni@cchs.csic.es.

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