



**Ministero dell'Istruzione, dell'Università e della Ricerca
Direzione Generale per il coordinamento e lo sviluppo e della ricerca
Ufficio III**

**Rendiconto di spesa Fondi 5 per mille ANNO 2016
Enti della Ricerca Scientifica – EURO 2.755.073,29**

Ente¹: FONDAZIONE UMBERTO VERONESI
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¹ Istituzione beneficiaria del contributo del 5 per mille.

Le scienze progrediscono ovunque ci sia vero scambio.

Scambio di esperienze, di conoscenze, di procedure, di risultati, di modi di arrivare alla soluzione di un problema.

Per questo, la Fondazione Umberto Veronesi promuove una cultura delle scienze che non abbia confini, favorendo la formazione professionale degli scienziati più meritevoli provenienti dall'Italia e dai diversi Paesi del mondo.

Fondazione Umberto Veronesi presenta annualmente un bando pubblico "POST-DOC FELLOWSHIPS" per giovani ricercatori e medici che lavorano su progetti innovativi presso le migliori istituzioni italiane e straniere, con l'obiettivo di trovare nuove soluzioni per il trattamento di diverse malattie, offrendo loro concrete opportunità di crescita e di specializzazione in vari ambiti della medicina e della ricerca biomedica.

Nello specifico, le borse di ricerca che Fondazione bandisce si rivolgono a

RICERCATORI E MEDICI ITALIANI, che svolgeranno un periodo di lavoro e ricerca presso centri di eccellenza in ambito nazionale ed internazionale: una concreta opportunità per crescere professionalmente, approfondire, confrontarsi con metodi di lavoro differenti.

RICERCATORI E MEDICI STRANIERI, che svolgeranno un periodo di lavoro e ricerca presso centri di eccellenza in Italia.

POST-DOC FELLOWSHIPS YEAR 2019

The human genome sequencing has represented the beginning of a new era in biomedicine that is rapidly transforming our understanding of human diseases and, consequently, our ability to prevent and treat them. The founding elements of this revolution are represented by the possibility of digitalizing the disease through omics analyses and understanding causal genetic and environmental mechanisms. The availability of tools for quantitative analysis might translate the evaluation of the risk of disease from the population dimension to the individual, and the choice of treatment from the disease to the patient (*Personalized or Precision Medicine*). The impact of Personalized/Precision Medicine is more evident in the field of oncology, as exemplified by the recent use of numerous personalized therapies in routine clinical activity. Some of these therapies have radically modified the natural history of specific tumor types.

FUV will award **152 fellowships** to top-level scientists (fundamental scientists or clinical scientists) in the field of Precision/Personalized Medicine.

For 2019, FUV offers:

- **One hundred and forty (140) 12-month fellowships** to promote original clinical and experimental research in leading Italian research institutions. **Up to 25 grants** will be reserved to medical doctors developing clinical research projects. **Each fellowship provides a gross sum of € 28,500 (before tax)** plus administrative and other related expenses.

- **Two (2) extra 12-month fellowships** will be granted in neuroscience (jointly with ProRett ONLUS) and paediatric oncology (in memory of Mr. Maurizio Del Col).

- **Ten (10) 6-month travel grants to support** Italian researchers, working in Italy at the time of application, who wish to spend 6-month period of research in a top-level laboratory or clinical department at a foreign institution. Preference will be given to projects allowing the learning of new methodologies and innovative technologies. **Each fellowship provides a gross sum of € 15,000 (before tax)** plus administrative and other related expenses.

1. RESEARCH AREAS

FUV aims at accelerating the transition toward Precision/Personalized Medicine and supports the highest quality research projects (whether fundamental, translational, or clinical) designed to identify novel approaches to the PREVENTION, EARLY DETECTION and DIAGNOSIS, and TREATMENT of human diseases in the fields of **ONCOLOGY, CARDIOVASCULAR diseases, NEUROSCIENCE and LIFE STYLE FOR DISEASE PREVENTION.**

ONCOLOGY

Fight against cancer is one of the major interests for FUV. The Foundation aims at sustaining cutting-edge research projects in the field of Personalized/Precision Oncology. Special attention will be given **to four broad oncology research fields:** i) Expanding Precision Medicine Clinical Trials; ii) Developing novel therapeutics or overcoming Drug Resistance; iv) Developing New Disease Systems based on human tissues; v) Developing digital platforms for the analyses and interpretation of omics or sensory data.

Scientists and medical doctors working on **female** (breast, ovary and uterus), **male** (**prostate, testicle, bladder**) and **paediatric tumors** are particularly encouraged to apply.

NEUROSCIENCE

Due to a still poor understanding of brain physiology, prevention and treatment of **neurological disorders** are limited and often not sufficiently effective. FUV aims at sustaining researchers

devoted to study mechanisms underlying major neuropsychiatric pathologies including **neurodegenerative diseases** (i.e. Parkinson and Alzheimer, dementia) and neurodevelopmental disorders.

CARDIOLOGY

Together with tumors, cardiovascular diseases are major killers in developed countries. FUV sustains projects focused on prevention and treatment of pathological conditions such as stroke, myocardial infarction, coronary artery diseases and pharmacological cardiotoxicity.

LIFE STYLE FOR DISEASE PREVENTION

FUV solicits proposals that investigate genetic and cellular mechanisms underlying the **effects lifestyles on health** and aim at designing novel approaches to disease prevention.

2. ELIGIBILITY CRITERIA

12-month fellowship

- ***Experimental research.*** Italian and foreign researchers holding a scientific degree in Medicine, Biological and Pharmaceutical Sciences, Biotechnology, Biostatistics, Computation Biology, Physics, Mathematics. **Post-graduate qualification** (i.e., specialization or PhD) in health-related fields is required. Selected candidates must carry out their research project in leading Italian institutions.
- ***Clinical research.*** Italian and foreign medical doctors. Candidates must hold a degree in Medicine and have clinical research experience and **post-graduate qualification** (i.e., specialization or PhD). Selected candidates must carry out their work in leading Italian Research-Hospitals and shall – based on their expertise – become members of specialized clinical teams, led by top-level referents. Please make sure that all qualifications held by foreign candidates are equivalent to their Italian counterparts, in order for them to be able to see patients in Italy. Candidates who do not fulfil the legal requirements to work as clinicians in Italy will be excluded from the evaluation procedure. Please be explicit in the Letter of Acceptance by the Hosting Institute that the candidate meets the legal criteria to work as a clinician.

The 12-month fellowships will only be awarded to researchers (Italian or foreigners) for research work at Italian institutions. There are **no fellowships available** for research work **outside of Italy**.

6-month fellowships (TRAVEL GRANTS).

Travel grants are limited to **Italian citizens working in Italy at the time of application**. Candidates should preferably hold a scientific degree such as Medicine, Biological and Pharmaceutical Sciences, Biotechnology, Physics or Mathematics. **Post-graduate qualification** (specialization or PhD) in a health-related field is mandatory.

3. EVALUATION PROCEDURES

All applications sent by the deadline and meeting the eligibility criteria will be evaluated by a **Scientific Committee** that will establish two ranking lists, one for the fundamental-research projects and one for clinical-research projects, according to the following criteria:

APPLICANTS IN EXPERIMENTAL RESEARCH

Candidates will be awarded funding based on:

- 1. Quality of the applicant's scientific CV.**

Please note that academic and professional achievements, studying/working experience abroad, quality of publications (i.e., the impact factor – IF – of the journals), authorship position (first, second, last author etc) will be part of the selection criteria.

Dissemination activities in schools and/or to civil society will be taken into account in the evaluation of the CV. Candidates are strongly invited to indicate title, place and date, sponsor of each single event. If awarded, the candidate must provide proof of his/her participation to the event.

2. **Quality of the proposed research project.**

Compliance with the call and field of application, **feasibility, innovation, and translational** basis of the project, as well as the potential of the outlined research to make a substantial contribution to the field, will be evaluated.

3. **Quality of the Hosting laboratory and Institution.**

Quality of the Host Institution (in terms of laboratories, facilities, *etc.*) as well as the competence of the Principal Investigator (P.I. – either being the head of the hosting laboratory and/or the senior scientist supervising the overall research project including candidate proposed activities), such as expertise in the field of the project, mentoring, international standing, *etc.*, will be evaluated.

APPLICANTS IN CLINICAL RESEARCH

Candidates will be awarded funding based on:

1. **Quality of the applicant's CV.**

Please note that academic and professional achievements, studying/working experience abroad and publications in peer-reviewed journals will be a part of the selection criteria.

Dissemination activities in schools and/or to civil society will be taken into account in the evaluation of the CV. Candidates are strongly invited to indicate title, place and date, sponsor of each single event. If awarded, the candidate must provide proof of his/her participation to the event.

2. **Quality of the proposed research project.**

Compliance with the call and field of application, **feasibility, innovation, and translational** basis of the project, as well as the potential of the outlined research to make a substantial contribution to the field, will be evaluated.

3. **Quality of the Hosting Institution.**

Institution/Hospital providing comprehensive care together with research activities will be highly valued.

4. GUIDE TO PROPOSAL APPLICATION

In the submission form, the researcher will be asked to provide, in separate files, the following documents:

- i) **candidate's CV** (max 4000 characters including spaces). Candidates who have had a period of justified absence from work (*i.e.* **maternity leave**), may state it in the CV. Date of PhD/Specialization degree must be clearly indicated
- ii) **list of scientific peer-reviewed publications** (no character limits). It is mandatory to clearly indicate the IF of every single publication mentioned in the application. Please report the most recent IF and **NOT** the one of the publication year. Only original papers and reviews will be evaluated for the publication record. Paper 'in press' are eligible only if an Editor 'letter of acceptance' is provided to borse@fondazioneveronesi.it. Papers accepted for publication after the closing of the call and during the process of evaluation will **NOT** be taken into account. Papers published on new journals with no IF are accepted, on condition that they are published on

international and peer-reviewed journals. Posters/abstracts at conferences, meeting proceedings, and book chapters **will not** be considered for evaluation but can be included in the CV.

iii) a **short abstract** of the proposed project (max 2000 characters including spaces).

iv) a **description of the proposed research project** – background, experimental plan, and description of expected results and future applications to health – (max 9000 characters including spaces).

v) **Bibliography is NOT included** in the 9000 characters of the project description and must be inserted in a separate field of the form with no space limits.

vi) **PI's CV** (max 2000 characters including spaces) including the field of investigation, up to five selected publication of the last ten years, and granted founding (optional). Requested CV is from the P.I. of the laboratory where the project will be carried on (i.e. for travel grants, the CV will refer to the P.I. of the foreign lab).

vii) **Research on animals** must conform to regulations protecting animals used for research purposes. Animal protocol(s) must be authorized by the Italian Ministry of Health (D.Lgs.26/2014). Ministry authorization must be valid for the period of the grant. A copy of the authorization must be provided during the application process (its presence will be taken into account by the evaluating committee in terms of project feasibility), or at latest upon grant acceptance (around mid December). Failure to provide it will result in fellowship loss. In case animal studies will be carried out in another lab, provide the authorization released to the collaborator together with a justification/collaboration letter.

viii) **Research on humans** If the research plan includes research in humans, the approval of the local Ethics Committee or Institutional Review Board (IRB) is mandatory. A copy of the approval documents must be provided during the application process (its presence will be taken into account by the evaluating committee in terms of project feasibility), or at latest upon grant acceptance (around mid December). Failure to provide it will result in fellowship loss. In case human samples are from other laboratory provide the authorization released to the collaborator together with a justification/collaboration letter.

Please note that during the application process you will be also asked to upload the following documentation:

- Two letters of recommendation not dated before 1st January 2017 (mandatory). One letter can be written by the hosting P.I.
- A letter of acceptance by the hosting institute, signed by the legal representative of the institute (mandatory). For travel grants, the hosting institution is the foreign laboratory the candidate is applying for. This letter must include the declaration that, if the candidate is awarded with a FUV fellowship, he/she will be able to carry out his/her research in that institution. Please also include in the acceptance letter the name of the laboratory, the name of the P.I./Professor/Group leader who will supervise the candidate, the department and the Institution where the research will take place.
- A report on any previous projects undertaken with a grant from Fondazione Umberto Veronesi (if any).
- Preliminary results of the project (if available).

OTHER INFORMATIONS

- All application materials must be written in English.
- All files must be in PDF or Word format.
- Each candidate is allowed to enter only one application. Candidates who enter more than one application will be excluded from the evaluation process.
- After sending the final submission of your application, it will **NOT** be possible under any circumstances to ask for amendments or corrections.

Attività:
COLNAGHI LUCA

Istituto Ospitante
Istituto Mario Negri, Milano

Titolo del progetto
Le modifiche delle proteine nella malattia di Alzheimer

Descrizione del progetto
Una delle caratteristiche principali della malattia di Alzheimer e' l'accumolo di proteine nel cervello. Questi depositi sono probabilmente una delle cause della perdita di neuroni e quindi delle capacita' cognitive tipiche dei malati. Dato il loro ruolo nelle malattie neurodegenerative, e' quindi molto importante capire come queste proteine si accumulino e causino la perdita dei neuroni. Diverse case farmaceutiche stanno infatti testando nuovi farmaci per ridurre la formazione di questi depositi, fino ad ora con risultati pero' non esaltanti. Uno dei motivi e' che ancora non sappiamo come questi depositi si formino e quindi i farmaci in studio sono probabilmente poco specifici. Lo scopo di questo progetto e' di colmare questa lacuna, studiando la formazione dei depositi. Negli ultimi anni si e' infatti scoperto che le proteine nei depositi sono modificate sia da piccoli gruppi chimici che da altre proteine e con questo progetto definiremo se queste modifiche hanno un ruolo nella malattia di Alzheimer.

Data di inizio progetto: entro il 30/04/2019

Data di fine progetto: 12 mesi post data di inizio

VOCI DI SPESA	COSTO COMPLESSIVO	QUOTA FINANZIATA CON FONDI 5 PER MILLE
Personale di ricerca (borsista, a contratto e di ruolo in quota parte)	28.500	28.500
Apparecchiature (ammortamento, canone di locazione/leasing)		
Materiale d'uso destinato alla ricerca (per laboratori di ricerca, ecc.)		
Spese di organizzazione (manifestazioni e convegni, viaggi, missioni ecc.)	1.000	1.000
Elaborazione dati	500	500
Spese amministrative	3.000	3.000
Altro (indicare quali)		

Attività:**COLOMBO FRANCESCA****Istituto Ospitante**

Fondazione IRCCS Istituto Nazionale dei Tumori, Milano

Titolo del progetto

Ruolo prognostico di varianti genetiche nel cancro polmonare

Descrizione del progetto

La sopravvivenza dei pazienti con adenocarcinoma polmonare è molto variabile anche tra pazienti diagnosticati con lo stesso stadio patologico e sottoposti ai medesimi trattamenti. Pertanto pensiamo che la sopravvivenza sia influenzata dalla costituzione genetica individuale. In particolare, in questo studio ipotizziamo che varianti genetiche modulino l'espressione dei geni nel tessuto polmonare circostante il tumore, determinando quindi una variabilità interindividuale nella capacità dell'ambiente polmonare di controllare la progressione del cancro polmonare.

Cercherò quindi di identificare varianti genetiche e profili trascrizionali, ovvero insiemi di geni espressi nel tessuto polmonare non tumorale, associati alla sopravvivenza dei pazienti. Integrando poi i dati ottenuti identificherò le varianti genetiche in grado di regolare i livelli di espressione dei geni nel tessuto polmonare e di modulare in tal modo la prognosi dei pazienti.

Questo studio permetterà di identificare marcatori prognostici, facilmente misurabili nel sangue, che, se validati in altre casistiche, sosterranno il follow-up ed il trattamento dei pazienti con adenocarcinoma polmonare.

Data di inizio progetto: entro il 30/04/2019**Data di fine progetto:** 12 mesi post data di inizio

VOCI DI SPESA	COSTO COMPLESSIVO	QUOTA FINANZIATA CON FONDI 5 PER MILLE
Personale di ricerca (borsista, a contratto e di ruolo in quota parte)	28.500	28.500
Apparecchiature (ammortamento, canone di locazione/leasing)		
Materiale d'uso destinato alla ricerca (per laboratori di ricerca, ecc.)		
Spese di organizzazione (manifestazioni e convegni, viaggi, missioni ecc.)	1.000	1.000
Elaborazione dati	500	500
Spese amministrative	3.000	3.000
Altro (indicare quali)		