

# Roberta Ranieri

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Date of birth: 22/03/1988 | Nationality: Italian | Gender: Female |

Centro Ricerche Emato-Oncologiche (CREO), Ospedale S. Maria della Misericordia, Piazzale Menghini 8/9, 06132, Perugia, Italy

## ● WORK EXPERIENCE

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01/11/2017 – CURRENT – Perugia, Italy

### **PHD STUDENT IN CLINICAL AND MOLECULAR MEDICINE – Centro Ricerche Emato-Oncologiche (CREO) – Section of Hematology and Clinical Immunology**

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The main objective of the project is to understand cellular, molecular mechanisms linking NPM1 mutations to acute myeloid leukemia (AML) disease and related leukemogenesis mechanisms. Using in vitro cell models and primary cell derived from patients we performed an high throughput screening of drugs, alone or in combinations in order to find a tailored/target therapy in NPM1-mutated AML.

ERC-funded project (ERC-2016-COG-H2020)

Supervisor: Prof. Maria Paola Martelli

30/08/2020 – 10/10/2020 – Heidelberg, Germany

### **VISITING PHD STUDENT – EMBL**

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High-throughput and automated microscopy for the screening of a large collection of compounds; Image and data analysis.

Head of the host Laboratory: Prof. Rainer Pepperkok

Supervisor: Prof. Maria Paola Martelli

02/2020 – 02/2020 – Heidelberg, Germany

### **VISITING PHD STUDENT – EMBL**

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Advanced Light Microscopy Facility (ALMF) at EMBL provides a huge collection of state-of-the-art light microscopy equipment and image processing tools.

Head of the host Laboratory: Prof. Rainer Pepperkok

CORBEL project (PID#4719 to Prof. Maria Paola Martelli)

Supervisor: Prof. Maria Paola Martelli

02/2019 – 02/2019 – Berlin, Germany

### **VISITING PHD STUDENT – Leibniz-FMP**

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The Screening Unit at FMP provides large collections of molecules including commercial and proprietary compounds and hundred thousands compounds from EU-OPENSREEN; and high-capacity screening platforms.

Head of the host laboratory: Jens-Peter von Kries

Supervisor: Prof. Maria Paola Martelli

11/2018 – 11/2018 – Berlin, Germany

### **VISITING PHD STUDENT – Leibniz- FMP**

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The Screening Unit at FMP provides large collections of molecules including commercial and proprietary compounds and hundred thousands compounds from EU-OPENSREEN; and high-capacity screening platforms.

Head of the host laboratory: Jens-Peter von Kries

CORBEL project (PID#4719 to Prof. Maria Paola Martelli)

Supervisor: Prof. Maria Paola Martelli

01/10/2016 – 30/09/2017 – Salerno, Italy

### **RESEARCH LABORATORY INTERNSHIP, DEPARTMENT OF MEDICINE AND SURGERY – University of Salerno**

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Study of interactions and cross-talk between melanoma cells and brain stroma and their invasion through the BBB;

Determine the functional role of neuroinflammation in brain metastatic niche formation;

Study the eventual dysregulation of the mevalonate pathway.

AIRC TRIDEO 2015 project (N°17216 to S. Pisanti)

09/03/2015 – 30/09/2016 – Salerno, Italy

## **RESEARCH LABORATORY INTERNSHIP, DEPARTMENT OF MEDICINE AND SURGERY – University of Salerno**

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Analysis of pathological processes involved in the development of human cutaneous melanoma and after pharmacological treatment: in vitro and in vivo studies;  
Studies of the molecular mechanisms responsible of neuroinflammation in the mevalonate kinase deficiency ( Telethon project funded GEP14111 to M. Bifulco);  
Pharmacological evaluation of molecules extract from Cannabis plant for medical purposes (collaboration with company Ikhemp).  
Supervisor: Prof. Maurizio Bifulco

07/01/2013 – 17/01/2015 – Napoli, Italy

### **UNDERGRADUATE RESEARCH LABORATORY INTERNSHIP – CEINGE**

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Production purification and characterization of helper-dependent adenoviral vector for Familial Hypercholesterolemia (FH) treatment;  
Evaluation in cellular models;  
Administration of the vectors in animal models.  
Supervisor: Prof. Lucio Pastore

07/03/2014 – 06/06/2014 – Montpellier, France

### **ERASMUS PLACEMENT ( RESEARCH LABORATORY INTERNSHIP) – Institute of Molecular Genetics of Montpellier (IGMM)**

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Design and production of canine adenovirus vector;  
Characterization and differentiation of murine neuroprecursor cells to generate neurons;  
Studies on receptor CAR (Coxsackievirus and adenovirus receptor) to evaluate its distribution and its involvement in neurodegenerative diseases.  
Supervisor: Prof. Eric Kremer

01/02/2012 – 30/04/2012 – Salerno, Italy

### **MARKET SALESWOMAN – Decathlon**

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03/07/2011 – 20/12/2011 – Napoli, Italy

### **UNDERGRADUATE RESEARCH LABORATORY INTERNSHIP – University of Naples, Federico II**

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First experience with laboratory equipment;  
Behavioral and ethical code to work with animal models.  
Supervisor: Prof. Antonio Colantuoni

18/12/2009 – 26/02/2010 – Napoli, Italy

### **ACADEMIC LIBRARIAN – University library, Department of Medicine and Surgery**

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## ● **EDUCATION AND TRAINING**

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01/11/2017 – CURRENT – Perugia, Italy

### **PHD FELLOW IN CLINICAL AND MOLECULAR MEDICINE – University of Perugia**

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ERC-Project Title: Dissecting to hit the therapeutic targets in acute myeloid leukemia with NPM1 gene mutations (ContraNPM1AML).  
ERC-funded project (ERC-2016-COG-H2020)  
Supervisor: Prof. Maria Paola Martelli

06/2018 – 05/2020 – Perugia, Italy

## **CORBEL PROJECT USER**

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The European CORBEL (Coordinated Research Infrastructures Building Enduring Life-science) consortium allows to awarded project the access to European high-end facilities and service providers free of charge.

Project title: High-throughput compound screening approach to identify drugs targeting the acute myeloid leukemia (AML) entity harbouring NPM1 gene mutation.

Research infrastructures partners are:

1. EU-OPENSREEN, Screening Unit and Medicinal Chemistry group, Leibniz-Forschungsinstitut für Molekulare Pharmakologie, FMP

2. Advanced Light Microscopy (ALMF) at EMBL, Heidelberg.

CORBEL-funded project (PID#4719 to Prof. Maria Paola Martelli)

Supervisor: Prof. Maria Paola Martelli

10/2018 – 12/2018 – Perugia, Italy

## **CERTIFICATE IN BREEDING BIOTECHNOLOGIES AND LABORATORY ANIMALS – University of Perugia**

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-Breeding Biotechnologies and Laboratory Animals Course (12CFU):

Laboratory animals and animal experimentation, VET/08 (6CFU);

Biotechnology applied to animal breeding, AGR/19 (6CFU);

-In-house animal facility training;

-Exam (8/03/2019)

01/10/2016 – 30/09/2017 – Salerno, Italy

## **POSTGRADUATE RESEARCH FELLOW – University of Salerno**

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Project Title: Molecular mechanisms linking neuroinflammation to melanoma brain metastases.

Fellowship on AIRC TRIDEO 2015 (N°17216 to S. Pisanti)

27/05/2017 – Salerno, Italy

## **FIRST CERTIFICATE IN ENGLISH (B2 LEVEL) – Cambridge English**

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14/04/2016

## **BIOLOGIST PROFESSIONAL ASSOCIATION REGISTRATION, N° 075573**

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20/10/2015 – 20/03/2016 – Salerno, Italy

## **POSTGRADUATE RESEARCH FELLOW – University of Salerno**

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Project Title: Study of new technologies and technology platforms for the improvement of production processes of pharmaceutical active substances of industrial interest and research of new bioactive compounds from natural sources.

Supervisor: Prof. Maurizio Bifulco

18/11/2015 – Benevento, Italy

## **BIOLOGY FINAL EXAMINATION – University of Sannio**

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17/12/2014 – Napoli, Italy

## **MASTER'S DEGREE IN MEDICAL BIOTECHNOLOGIES MAGNA CUM LAUDE (110/110 WITH HONORS) – University of Naples, Federico II**

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Thesis: Production, characterization and administration in LDL-deficient mice of adenoviral vector expressing LDLR-Tf fusion protein as treatment of familial hypercholesterolemia.

Supervisor: Prof. Lucio Pastore

19/12/2011 – Napoli, Italy

## **BACHELOR'S DEGREE IN BIOTECHNOLOGY FOR HEALTH 108/110 – University of Naples, Federico II**

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Thesis: Ischemia- reperfusion: cardiovascular responses in the rat pial vessels.

Supervisor: Prof. Antonio Colantuoni

01/10/2010 – 31/05/2011 – Salerno, Italy

## **COURSE AND EXAM CAMBRIDGE PET (B1 LEVEL) – University Language Centre (CLA)**

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01/06/2009 – 31/08/2009 – Napoli, Italy

**GERMAN SUMMER COURSE – University Language Centre (CLA)**

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15/09/2002 – 31/05/2007 – Salerno, Italy

**SCIENTIFIC HIGH SCHOOL DEGREE 98/100 – Science High School G. Da Procida**

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01/02/2006 – 30/06/2006 – Salerno, Italy

**COURSE AND EXAM TRINITY. GRADE 8 – Science High School G. Da Procida**

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01/02/2005 – 01/06/2005 – Salerno, Italy

**COURSE AND EXAM TRINITY. GRADE 6 – Science High School G. Da Procida**

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20/06/2003 – Salerno, Italy

**SOLFEGGIO DEGREE – Music Academy G. Martucci**

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## ● LANGUAGE SKILLS

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Mother tongue(s): ITALIAN

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	B2	B2	B2	B2	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

## ● PUBLICATIONS

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### Publications

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Abate M, Laezza C, Pisanti S, Torelli G, Seneca V, Catapano G, Montella F, **Ranieri R**, Notarnicola M, Gazzero P, Bifulco M, Ciaglia E. Deregulated expression and activity of Farnesyl Diphosphate Synthase (FDPS) in Glioblastoma. *Sci Rep*. 2017 Oct 26;7(1):14123.

**Ranieri R**, Ciaglia E, Amodio G, Picardi P, Proto MC, Gazzero P, Laezza C, Remondelli P, Bifulco M. N6-isopentenyladenosine dual targeting of AMPK and Rab7 prenylation inhibits melanoma growth through the impairment of autophagic flux. *Cell Death Differ*. 2018 Feb;25(2):353-367.

Ciaglia E, Laezza C, Abate M, Pisanti S, **Ranieri R**, D'alessandro A, Picardi P, Gazzero P, Bifulco M. Recognition by Natural Killer cells of N6-isopentenyladenosine-treated human glioma cell lines. *Int J Cancer*. 2018 Jan 1;142(1):176-190.

Bifulco M and **Ranieri R**. Impact of drought on human health. *Eur J Intern Med*. 2017 Aug 11.

Ciaglia E, Grimaldi M, Abate M, Scrima M, Rodriguez M, Laezza C, **Ranieri R**, Pisanti S, Ciuffreda P, Manera C, D'Ursi AM, Bifulco M. The isoprenoid derivative N6-isopentenyladenosine (CM223) exerts antitumor effect in glioma patient-derived primary cells through the mevalonate pathway. *Br J Pharmacol*. 2017 Apr 18.

Pisanti S, Malfitano AM, Ciaglia E, Lamberti A, **Ranieri R**, Cuomo G, Abate M, Faggiana G, Proto MC, Fiore D, Laezza C, Bifulco M. Cannabidiol: State of the art and new challenges for therapeutic applications. *Pharmacol Ther*. 2017 Feb 22

Bifulco M, **Ranieri R**, Ciaglia E. Brain cancer risk: the weight of obesity. *J Neurooncol*. 2016 Nov 9.

**Ranieri R**, Laezza C, Bifulco M, Marasco D, Malfitano AM. Endocannabinoid System in Neurological Disorders. *Recent Pat CNS Drug Discov*. 2016;10(2):90-112.

**Ranieri R**, Marasco D, Bifulco M, Malfitano AM. Cannabimimetic Drugs: recent patents in central nervous system disorders. *Recent Pat CNS Drug Discov*. 2016 Jun 19.

**Ranieri R**, Marasco D, Laezza C, Bifulco M, Malfitano AM. Cannabinoids and neuro-inflammation: regulation of brain immune response. *Recent Pat CNS Drug Discov*. 2016 Jun 19.

**Ranieri R**, Marasco D, Bifulco M, Malfitano AM. Phytocannabinoids and cannabimimetic drugs: recent patents in central nervous system disorders. *Recent Pat CNS Drug Discov*. 2016 May 17.

## ● DRIVING LICENCE

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Driving Licence: B

## ● CONFERENCES AND SEMINARS

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### Conferences

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24-26/10/2019: "ESH 5th International Conference on Acute Myeloid Leukemia", ESH (European School of Haematology), Estoril (Portugal)  
25-26/09/2019: " SOHO - 1st Italian Conference". SOHO (Society Of Hematologic Oncology) Rome.  
18-20/10/2018: "XV National Congress SIES 2018", SIES (Italian Society of Experimental Hematology), Rimini.  
19-20/01/2018: "CANCER GENETICS: Yesterday, Today, Tomorrow", University of Perugia, Perugia.  
22/02/2018: "Discover wide-ranging approaches and opportunities in Multicolor Flow Cytometry", BD Biosciences, IRCCS, Ospedale Pediatrico Bambino Gesù, Roma.  
20-22/10/2016: International Symposium "Epigenetics and Epigenomics: Crossroad between genes and environment." Ordine dei medici e degli odontoiatri della provincia di Salerno, Salerno;  
15/05/2015: "Endocannabinoid system in the control of proliferation", De Bellis hospital, Bari.  
19/11/2013: "It was immediately light...laser", University of Naples, Federico II, Naples;  
14/11/2013: "Stem cells: between strenuous achievements and imaginative treatment", University of Naples, Federico II, Naples;  
03/10/2013: "Biotechnology in Medicine", Assobiotech, Naples;

## ● ORGANISATIONAL SKILLS

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### Organisational skills

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The experience gained in different University research groups, participation and preparation of lab-meetings, workshops and conferences both in house and abroad, have enabled the development of good skills in planning and organization of work, data collection and in their presentation.

## ● COMMUNICATION AND INTERPERSONAL SKILLS

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### Communication and interpersonal skills

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Good integration capabilities acquired during the time working in different environments and areas : thanks to years of study holidays, internship abroad as well as temporary jobs.  
Excellent capacity for teamwork.

## ● JOB-RELATED SKILLS

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### Job-related skills

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Good experience with cellular and molecular biology laboratory equipments.  
Autonomous organization of the experimental work.  
Good mastery command of the leading cell and molecular biology techniques: maintaining and expanding primary and immortalized cell lines (both adherent and in suspension); Cloning plasmid vectors; Nucleic acid and protein extraction; Cellular transfection using different techniques; Gene silencing (siRNA); PCR; gene expression analysis by qRT-PCR; Agarose and SDS-PAGE electrophoresis; Western blotting; image acquisition with optical, fluorescence and confocal microscopes; Cell viability and proliferation assays; Functional and immunoenzymatic assays;  $\beta$ -galactosidase assay; ELISA.  
Basic flow cytometry applications and analyses.  
Gene therapy methodologies: production of last-generation adenovirus vectors, lentivirus and retrovirus vectors, purification and titration of adenovirus vectors; analysis of adenoviral vectors using in vitro and in vivo approach.  
Techniques for in vivo manipulation: maintaining mice colonies; Caudal injections and withdrawals.  
Screening and study of synthetic and natural compound on different cell lines, determination of IC50, dose/response curve analysis; high-throughput screening and analysis of "hit" compounds; studies of drug combination.

## ● POSTER

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### Poster

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28-31/05/2017: SIICA National Congress, Bari.

Abstract: Abate M, Laezza C, D'Alessandro A, Pisanti S, **Ranieri R**, Bifulco M, Ciaglia E. N<sup>6</sup>-isopentenyladenosine triggers anti-glioma innate immune response dependent on the p53 status of cells through the induction of ULBP2 and MICA/B.

13-15/03/2017: XIX Telethon Scientific Convention, Riva del Garda (TN).

Abstract: Pisanti S, **Ranieri R**, Ciaglia E, Lamberti A, Laezza C, Bifulco M. Role of unprenylated 2',3'-cyclic-nucleotide 3'-phosphodiesterase in the molecular mechanisms responsible for neuroinflammation and neurological impairments in mevalonate kinase deficiency.

7-10/09/2016: European Society for Dermatological Research (ESDR), 46th Annual Meeting 2016 Munich.

Abstract: Ciaglia E, Lamberti A, Cuomo G, Faggiana G, Abate M, **Ranieri R**, Lembo S, Balato A, Monfrecola G and Bifulco M. Modulation of inflammatory milieu in skin diseases: novel multi-actions of the non-psychotropic plant-derived cannabinoid, Cannabidiol. (DOI: 10.1016/j.jid.2016.06.274)

22/05/2014: American Society of Gene & Cell Therapy (ASGCT), 17th Annual Meeting, Washington.

Abstract: Leggiero E, **Ranieri R**, Lombardo B, Iaffaldano L, Querques F, Salvatore F, Pastore L. Helper dependent- Adenoviral vector expressing Transferrin-LDL receptor fusion protein for gene therapy of familial hypercholesterolemia" (Molecular Therapy Volume 22, Supplement 1, May 2014 )

## ● WORKSHOPS

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### Workshops

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28-29/11/2019: "VII Workshop SIES in Translational Hematology", SIES (Italian Society of Hematology), Bari.

1-2/10/2019: "2nd CORBEL Service Operator and User Meeting", CORBEL consortium, Heidelberg (Germany).

14-18/01/2019: Winter School on Biotechnology 2019. University of Perugia, Perugia.

22-26/01/2018: Winter School on Biotechnology 2018. University of Perugia, Perugia.

## ● COURSES

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### Courses

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14-15/04/2020: NEUBIAS Academy - ImageJ/Fiji Macro Language. Live Online Courses by NEUBIAS, Network of European Bioimage Analysts.

01/04/2020: Introduction to Cytoscape and Network Biology. EMBL, Heidelberg

30/03/2020: Basic Methods in Image Analysis. EMBL, Heidelberg

12/03/2020: siRNA experiments and siRNA design. EMBL, Heidelberg

28/05/2019: BD Training for the "BD LSRFortessa" cell analysis. Flow cytometry operator training on-site. Perugia.

1/10/16- 1/05/2017: Cambridge Course First Qualification (B2 level)

29/08- 23/09/2016: Cambridge B2 Course (50h)

11-12/06/2016: " Updates in Human Nutrition" , Scuola di nutrizione salernitana, Rome

14-15/11/2015: "Consultant on food hygiene and management system H.A.C.C.P. " (online)

13/09/2015- 6/12/2015: "11° Course and training in human food and nutrition" Scuola di Nutrizione Salernitana, Salerno and online

5-27/02/2015: "Statistics, a practical approach to the analysis of biological data", Città della scienza, Naples

4-6/03/2015: "Microscopy school", Tigem, Naples

30/11/2013: "Naples BioVenture" , F.I.Bio. Naples

## ● FURTHER INFORMATION

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### Further information

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Hobbies: reading, travelling;

Sports: cycling, swimming, running.

Voluntary activities (events promoted by AIL, AIRC, Telethon).

## ● **PRIVACY**

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### **Privacy**

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*In compliance with the Italian Legislative Decree no. 196 dated 30/06/2003, I hereby authorize the recipient of this document to use and process my personal details for the purpose of recruiting and selecting staff and I confirm to be informed of my rights in accordance to art. 7 of the above mentioned decree.*