



# Taljinder Singh

## WORK EXPERIENCE

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### PhD Student

*Sapienza University of Rome & ISS - Istituto Superiore di Sanità* [ 01/04/2021 – Current ]

City: Rome

Training in lab: Magnetic Resonance Imaging (MRI), Magnetic Resonance Spectroscopy (MRS) and Functional Magnetic Resonance Imaging (fMRI)

### Scholarship

*Sapienza University of Rome* [ 15/01/2021 – 26/03/2021 ]

City: Rome

Study of the strain properties of nanomaterials and nanodevices

## EDUCATION AND TRAINING

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### Master's Degree in "Ingegneria delle Nanotecnologie"

*Sapienza University of Rome* [ 2017 – 2020 ]

Address: Rome

Thesis: From cellulose to nanocellulose: characterizations and applications in eco-sustainable agriculture

Experience in lab: Atomic Force Microscope (AFM): Dimension ICON (Bruker Inc.). Scanning Electron Microscope (SEM): HR-FESEM, AURIGA Zeiss. X-Ray Diffraction (XRD): Miniflex II - Rigaku. Surface Plasmon Resonance (SPR)

### Bachelor's Degree in "Ingegneria Chimica"

*Sapienza University of Rome* [ 2013 – 2017 ]

Address: Rome

Thesis: Recovery of polyphenols from beer grains

Experience in lab: Spectrophotometry UV/Vis.

### Scientific High School

*Liceo Scientifico "Galileo Galilei"* [ 2013 ]

Address: Terni

## LANGUAGE SKILLS

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Mother tongue(s): **Italian**

Other language(s): **English** | **French**

## DIGITAL SKILLS

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### My Digital Skills

Microsoft Office / Matlab / Paravision 360 / Bruker TopSpin / LCMoel / FSL Software Library / FSLeves / Problem Solving

## PUBLICATIONS

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### **The over-expression of human hydrolase hMTH1 modulates metabolism and fat composition in mice exposed to high fat diet: a MRI and MRS study**

[2022]

Rossella Canese, Gabriele De Luca, Taljinder Singh, Ambra Dell'Orso, Egidio Iorio, Mattea Chirico, Maria Elena Pisanu, Paola Fortini and Valeria Simonelli

Abstract presented at the Joint Annual Meeting ISMRM-ESMRMB 2022, London

### **Preliminary Results Towards the Mechanical Characterization of Cellulose Nanofibers Using HarmoniX Mode Atomic Force Microscopy**

[2021]

Taljinder Singh, Pierfrancesco Atanasio, Daniele Schiavi, Veronica Di Lorenzo, Francesca Anna Scaramuzzo, Daniele Passeri, Giorgio Mariano Balestra and Marco Rossi

Manuscript in "Nanoinnovation 2020"

## CONFERENCES AND SEMINARS

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### **EBRAINS: Brain Activity across Scales and Species: Analysis of Experiments and Simulations HBP (Human Brain Project)**

[ Rome, 13/06/2022 – 15/06/2022 ]

Auditor

### **Le nuove frontiere dell'imaging a risonanza magnetica nella ricerca precinica e traslazionale**

[ Aula Bovet - ISS - Rome, 31/05/2022 ]

Scientific Secretary

### **ISMRM (International Society for Magnetic Resonance in Medicine) 2022**

[ London, 11/05/2022 – 12/05/2022 ]

Auditor

### **AIRMM (Associazione Italiana di Risonanza Magnetica in Medicina) 2021**

[ Online, 16/12/2021 – 17/12/2021 ]

Auditor

### **NanoInnovation 2021**

[ Rome, 21/09/2021 – 24/09/2021 ]

Staff

### **GIDRM (Gruppo Italiano Discussione Risonanze Magnetiche) 2021**

[ Online, 08/09/2021 – 10/09/2021 ]

Auditor

## **NanoInnovation 2020**

[ Rome, 15/09/2020 – 18/09/2020 ]

Staff

## **NanoInnovation 2018**

[ Rome, 11/09/2018 – 14/09/2018 ]

Auditor

## **PROJECTS**

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### **Sviluppo e applicazione di tecniche di imaging funzionale e spettroscopia a risonanza magnetica per lo studio di un trattamento innovativo contro la depressione in modelli animali**

[ 2021 ]

Manager of the project granted by Sapienza University of Rome

### **Role of Vitamin B12 in neurological homeostasis and possible rescue of a deficiency or metabolic defect using nanotechnology complexes**

[ 2021 ]

Component of the project granted by Sapienza University of Rome

## **COURSES**

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### **Animal testing procedures**

ISS - Istituto Superiore di Sanità