

Career Sheet: Scientist in the field of Biomimetic Medicine, Director of Research



Dr. ENNIO TASCIOTTI PhD (Professor, Scientist, Inventor, Entrepreneur)

I am the Founder and Director of the Center for Biomimetic Medicine at the Houston Methodist Research Institute (HMRI), and the Director of the Center for Musculoskeletal Regeneration at the Houston Methodist Hospital (HMH). I am a Full Professor of Regenerative Medicine at the Institute of Academic Medicine, affiliated to the Weill Cornell College of Medicine. I am a pioneer of the field of biomimetic medicine and among the first to exploit the immune system's regenerative power to repair tissues and restore organs' function.



OVERVIEW OF THE JOB

I coordinated interdisciplinary collaborative research groups and oversaw scientific programs in biomedical sciences and engineering. I managed multidisciplinary teams of scientists (physicists, chemists, pharmacologists, engineers, biologists, doctors). I am the founder and Chief Scientific Officer of 3R Biotech, a company devoted to the development of regenerative medicine products and solutions.



WHAT INSPIRED YOU

I always wanted to be a scientist and pursued this career with passion and determination. I was inspired by the ability of scientists and doctors to solve clinical problems and give hope to sick patients.



TYPICAL WORKING DAY

The first thing I do when I go to work is meeting my team and get updates about the latest experiments and the ongoing research. I help them troubleshoot problems and interpret their results. I meet collaborators and other scientists involved in my research and I stay constantly updated on the discoveries and breakthroughs reading scientific literature and attending international conferences.



STUDY & CAREER PATH

I graduated in Molecular Biology at Scuola Normale di Pisa, received a PhD in Molecular Medicine at the International Center for Genetic Engineering and Biotechnology and completed a postdoctoral training in Nanomedicine. In my career I followed my curiosity and focused on the latest trends in science and technology preferring to learn the essential aspects of different fields rather than becoming an expert of one field. This made my career path pretty unique and different from that of my colleagues.



KEY SKILLS

There are several skills a scientist needs to acquire if he/she wants to excel and succeed in research. Among the Analytical skills I would mention: Critical thinking and Problem-solving, in the Business area: Collaboration Presentation Writing. In Management: Leadership Coaching People Management Delegating Tasks Project Management Strategic Planning. The most important personal and Social Skills are: Adaptability Commitment Creativity Curiosity Motivation Resilience Team spirit.



CAREER PROSPECT

I can work in Academia as an educator or as a researcher. I can work in the private sector for big pharmaceutical companies or start ups to develop new technologies or therapies. I can also offer my knowledge as a consultant to facilitate the progress of other people and companies involved in research.



CHALLENGES

There is always something new and unexpected in science and therefore the challenge is to be able to adapt to new situations. It is also a work characterized by a process of trial and error so failure happens often. The challenge is to never let go and to not despair if things don't work out as expected. Most of the discoveries happen serendipitously and the secret is to always follow the data without hesitation.



YOUR ADVICE TO STUDENTS

Cultivate your curiosity and creativity. These are essential attributes for a scientist. It all starts with an idea, an intuition, an hypothesis. Then there is experimental part which requires method, precision and objectivity. But don't be afraid of thinking out of the box and to pursue your own path.



YOUR ADVICE TO TEACHERS AND PARENTS

Stimulate the curiosity of your students by allowing them to connect the dots in their own way. Each of us sees things differently and this multitude of views is what science needs to advance.



LEARN MORE

Interview: [Il Nano Mondo del professor Ennio Tasciotti](#) (IT)

[Ennio Tasciotti TEDxCNR talk: 'to fight cancer, we need to think as if we were a cell'](#) (IT)

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