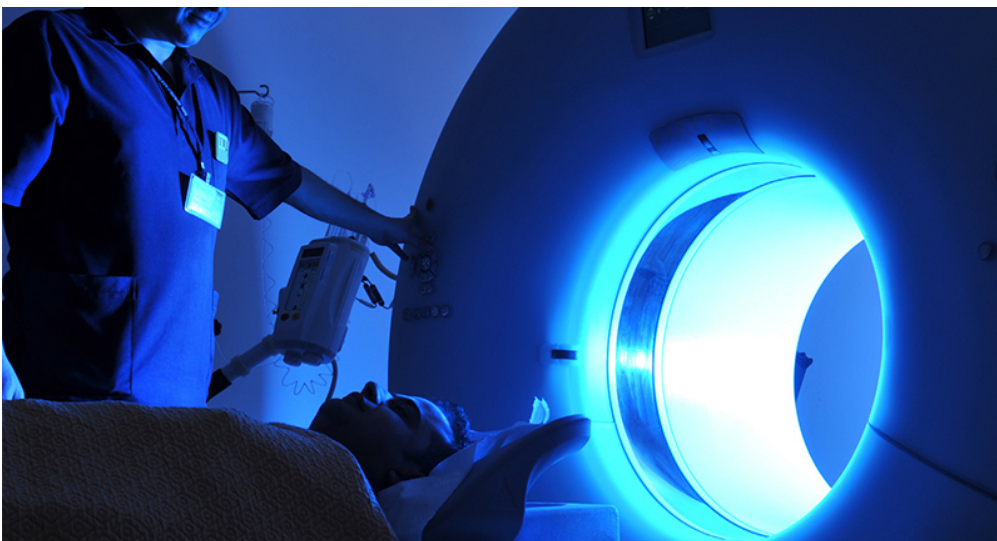


BIOMEDICAL PHYSICS

Medicine is about diagnosing diseases and treating patients, while **biomedical physics** is about research into the *next generation of life saving advancements and technologies*. Biomedical physicists apply physics concepts, theories and methods to *make new discoveries* in biology and *improve medicine* and healthcare.



WHERE CAN BIOMEDICAL PHYSICS TAKE YOU?

- *You can discover* what causes neuro-degenerative diseases such as Parkinson's and Alzheimer's.
- *You can prevent* heart failure, muscular dystrophy and help develop exoskeletons for patients with brain and spinal injuries.
- *You can guide* the development of a new generation of pacemakers.
- *You can develop* optical tools and super-resolution microscopes.
- *You can work* with neurologists to understand brain function and neuronal networks using electromagnetism.
- *You can create* new treatments for cancer with physics at the nanoscale.
- *You can help* treat patients with radiation and develop new nuclear physics diagnostic tools.
- *You can construct*, evaluate and certify the safety and accuracy of devices including MRI, CAT, bone density scanners; and X-ray machines.
- *You can create* software for medical equipment and imaging systems.
- *You can design* new ultrasensitive detectors of disease markers.
- *You can discover* the structure and function of biological systems (tissues, cells and cellular components down to single molecule level – DNA, RNA, lipids and proteins).

#1

fastest growing >\$100k
STEM job is **Physicist**.
19.8% growth last decade.



28%

growth last decade for
biophysicists, more than 5x
growth of all occupations.



50.1%

of Nebraska jobs growth
next decade will be in
health-related fields



\$120k

median salary for medical
scientists, such as
biomedical physicists.



options with a flexible
physics degree: medical,
scientific, technical, and
engineering careers.