

## **TRANSLATIONAL MEDICINE - Tematiche prova scritta XXXIII ciclo**

### **“Basic research”:**

1. Regulation of gene expression;
2. Structure/Function in proteins;
3. Protein homeostasis, folding and aggregation;
4. Membrane transport;
5. Mitochondrial function and dysfunction;
6. Intercellular communication;
7. Cell death;
8. Stem cells;
9. The cell biology of cancer;
10. The biology of ageing;
11. Mechanisms of immunity;
12. Whole body homeostasis.

### **“Clinical research”:**

1. Mendelian diseases;
2. Epigenetics;
3. Cancer genetics;
4. Signalling in development and cancer;
5. Nanomedicine;
6. Next generation sequencing;
7. Host-virus relationship and antiviral therapy;
8. Immune response to pathogens;
9. Brain ageing and neurodegeneration;
10. Neurohormonal regulation of the circulation;
11. Atherosclerosis and thrombosis;
12. Gastrointestinal inflammation and cancer.