**Biochemistry:**

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| Research title | Outlines |
| 1. **Diseases caused by abnormal protein structure** | * Definition of proteins * General structure * Classification * Levels of protein structure * Protein folding * Effect of unfolded proteins and mutated proteins on health. |
| 1. **Defective DNA repair system and relation to cancer.** | * Definition of repair * Types of repair system * Types of DNA repair system defects * Clinical correlation of defective repair systems |
| 1. **Recombinant DNA technology** | * Definition * Biomedical importance * Types and techniques * Discuss basis of different methods including gene cloning, sequencing and blotting techniques and their implications in diagnosis of different diseases. |
| 1. **Inborn errors of protein metabolism** | * Discuss in detail different examples of inborn metabolic disorders with the reference to the enzymatic deficiency, defective metabolic pathway, clinical picture and management. |
| 1. **Vitamins and their implications on health** | * Vitamins Classification * Types * Functions * Deficiencies |