# Life Science

2 units (selection)

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Target> Understanding of significance of protein in biotechnology

Outline> Basics of structure, function and application of protein are introduced

**Style**> Lecture

## Keyword > protein, enzyme, biotechnology

#### $\textbf{Goal}\rangle$

- 1. Understanding of multiple functions of proteins
- 2. Understanding of principle of protein engineering and its application

#### $\textbf{Schedule}\rangle$

- 1. Introduction of life science
- 2. History of life science
- 3. Structure and function of DNA and RNA
- 4. mRNA is a template of protein
- 5. Duplication of DNA
- **6.** Regulation of protein expression
- 7. Human Genetics
- 8. Genetic disease
- 9. DNA diagnosis
- 10. Structure and function of protein
- **11.** Principle of gene technology (1)
- **12.** Principle of gene technology (2)
- 13. Protein engineering
- 14. Future of life science (1)
- **15.** Future of life science (2)
- **16.** Preparation of report
- Evaluation Criteria > Evaluation by report
- **Textbook** $\rangle$  To be introduced in the class
- **Reference** $\rangle$  To be introduced in the class
- Contents http://cms.db.tokushima-u.ac.jp/cgi-bin/toURL?EID=216740

### **Contact**>

- ⇒ Tsuji (G710, +81-88-656-7526, tsuji@bio.tokushima-u.ac.jp) MAIL (Office Hour: Monday 16:20-17:50)
- **Note**> When you take this class, it is necessary to do preparation for 2h and review for 2h everry 2h class for your understanding and taking credit.