

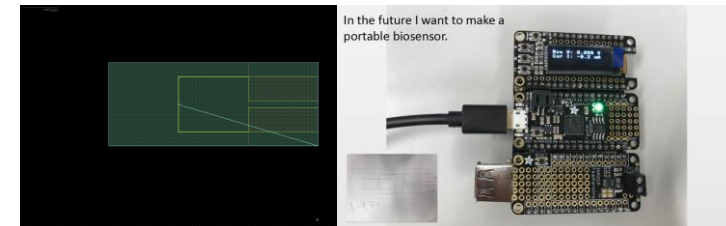
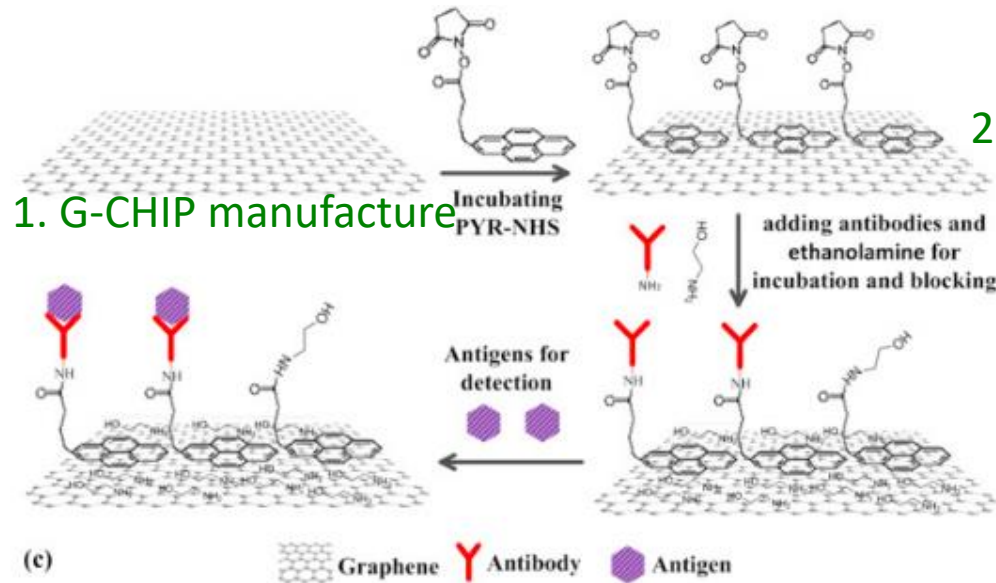
Biomolecular Detection

Using Pyrene-Functionalized Graphene

**Shiyu Wang, Md. Zakir Hossain , Takaaki Suzuki, Kazuo Shinozuka
Ryo Ichige, Anna Kuwana, Haruo Kobayashi**
Faculty of Science and Engineering, Gunma University, JAPAN

We have developed a graphene biosensor and performed its experiments.

- Cancer diagnosis by detection of biomolecule amount in patient's blood
- Real-time performance
- Direct conversion from biological to electrical signals



5. (Right) Electrical measurement
(Left) Portable equipment

4. Biological modification

3. Chemical modification