SD3665
※弊会記入欄

Form B-2
(FY2020)
Must be typed

Date（日付）
19/12/2020 （Date/Month/Year：日/月/年）

Activity Report -Science Dialogue Program-
（サイエンス・ダイアログ事業 実施報告書）

- Fellow's name（講師氏名）: Abhijnan Ray Choudhury (ID No. P19407)

- Name and title of the accompanying person（講義補助者の職・氏名）
NA

- Participating school（学校名）: Nagoya City Koyo Senior High School

- Date （実施日時）: 18/12/2020 （Date/Month/Year:日/月/年）

- Lecture title（講義題目）:
A chemical journey from ancient India to asymmetric catalysis

- Lecture format（講義形式）:
◆Lecture time（講義時間） 40 min（分）, Q&A time（質疑応答時間） 30 min（分）
◆Lecture style（ex.: used projector, conducted experiments）
（講義方法（例：プロジェクター使用による講義、実験・実習の有無など））
Projector, Powerpoint presentation

- Lecture summary（講義概要）: Please summarize your lecture within 200-500 words.

Speaker's native country boasts a geographically diverse landmass inhabited by culturally and religiously rich people. India, apart from being the largest democracy in the world and the epitome of "Unity in diversity", also had a long-standing tradition of practicing science, including chemistry. While in western world chemistry was born as a branch of alchemy with a desire of converting low-cost metals to precious metals, chemical development was mainly focussed on "Ayurveda (herbal treatment)" and metallurgy in India. Journey of chemical development across the early age of civilization will be discussed highlighting key developments (e.g. Damascus blade).

Ever since the pioneering work of Louis Pasteur in successful separation of tartaric acid enantiomers (more correctly enantiomorphs), the craving of obtaining a chiral molecule in its enantiomeric pure form eluded the chemical community. Asymmetric catalysis is one such method to obtain enantiomerically pure molecules apart form the earlier developed chiral pool synthesis and chiral auxiliary methods. Organocatalysis, the newest branch of asymmetric catalysis, provides a robust, environmentally friendly option in accessing these enantioselective products. As the importance of using single enantiomeric

molecule as drugs have gathered pace in recent years, the significance of asymmetric catalysis has been realized.
We developed an umpolung (polarity reversal) strategy for the enantioselective construction of quaternary stereocenter containing alkenyl moiety. The challenges, concept development, successful realization of the goal will be discussed during the talk.

◆Other noteworthy information（その他特筆すべき事項）:

- Impressions and commnets from the accompanying person（講義補助者の方から、本事業に対する意見・感想等がありましたら、お願いいたします。）:
Not applicable