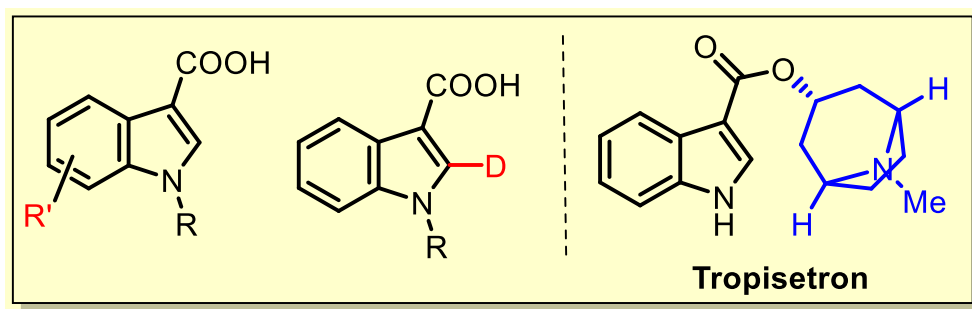




CSIR-Indian Institute of Chemical Biology

An improved process for indole-3-carboxylic acid derivatives in the manufacture of TROPISETRON

INTRODUCTION: The present invention relates to the finding of a new straightforward synthetic methodology for the preparation of indole-3-carboxylic acid (ICA) derivatives. It is a building block motif widely present in numerous natural products and biologically active molecules. CSIR-IICB has developed an efficient, safe, cost effective and industry friendly process to prepare indole-3-carboxylic acid derivatives towards the synthesis of tropisetron (**Navoban**) a is a serotonin-5HT₃ receptor antagonist *used mainly as an antiemetic to treat nausea and vomiting following chemotherapy.*



CHALLENGE/APPLICATION DOMAIN: IICB has developed an environment friendly and cost effective process using inexpensive reagents.

OPPORTUNITY: Competing technology is not available at present and Pharma and fine chemical industry can employ this cost-effective IICB- process for preparation of various drugs including tropisetron using the key starting material indole-3-carboxylic acid.

STAGE OF TECHNOLOGY DEVELOPMENT: TRL 4: Ready for transfer

REFERENCES/ PATENTS : Indian Patent filed 0163NF2021/IN; 202111047806 2021

Patent: *WO 2023/067628 A1, 2023*

PROJECT INVESTIGATORS: Dr. Indubhusan Deb

FUNDING: CSIR

Collaborating Institute/Company if any (pls indicate if a separate MoU/agreement is in place.):
None.