

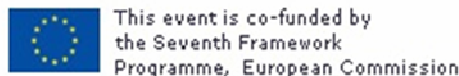


Thursday 5 November
EU-India PARTNERING EVENT

*Theme: Fork to farm: Food
(including seafood), health and*

Prof. Ram Rajasekharan
Central Institute of Medicinal & Aromatic
Plants (CIMAP, CSIR)
Lucknow-INDIA

A joint event organized by



RESEARCH CENTRE



Fork to farm Fork to farm Fork to farm Fork to farm

CIMAP, a national lab of Council of Scientific & Industrial Research (CSIR) through its well defined mission of “**Green Path to Better Life**”, while conserving the genetic resources systematically, is making available the improved agro- and processing technologies of commercially important medicinal and aromatic plants.

Lucknow



Bangalore



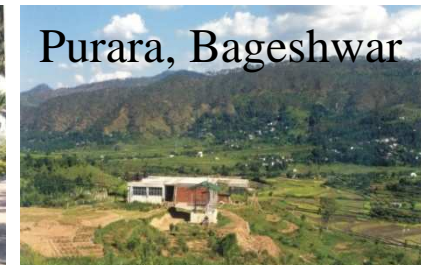
Hyderabad



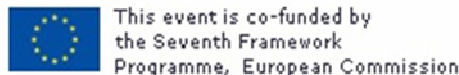
Pantnagar



Purara, Bageshwar



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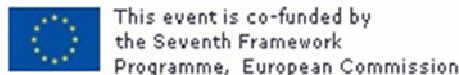
PROJECT IDEA



Fork to farm Fork to farm Fork to farm Fork to farm

- *Conversion of agricultural residues to chemicals/biofuel by supercritical fluid (SCF).*
- *Production of **biodiesel** from algae & the spent biomass used for biofuel production by SCF. A possible hydrogen production from algae.*

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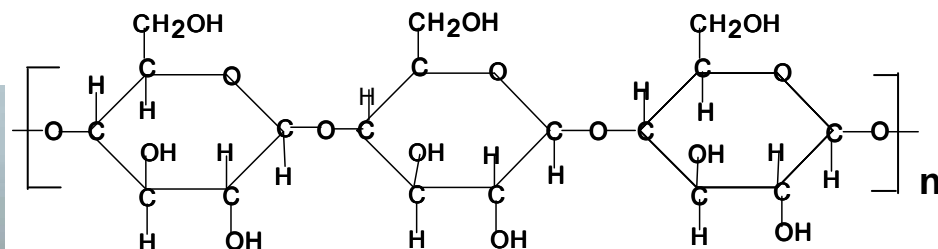


DEVELOPED PROJECTS & RESEARCH IDEA

2 L Capacity - **Achieved**



Chemist: Dr. P.K. Rout
 Chemical Engineer: Mr. S. Tandon



Cellulose



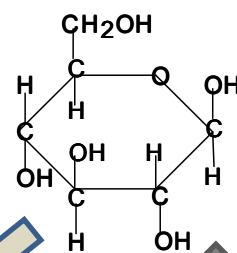
Super critical - H₂O

H₂O:

Critical Temp : 374 °C

&

Critical pressure: 22.1 MPa



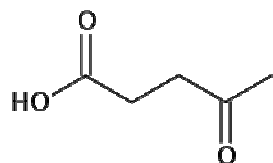
Glucose

H₂SO₄, 200°C
 20 MPa

BIOFUEL

Fermentation

4-oxopentanoic acid



Levulinic acid

Ethanol

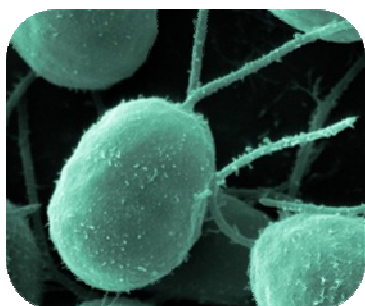
Research Focus:

Looking for a
new Catalyst to
 lower temp &
 pressure

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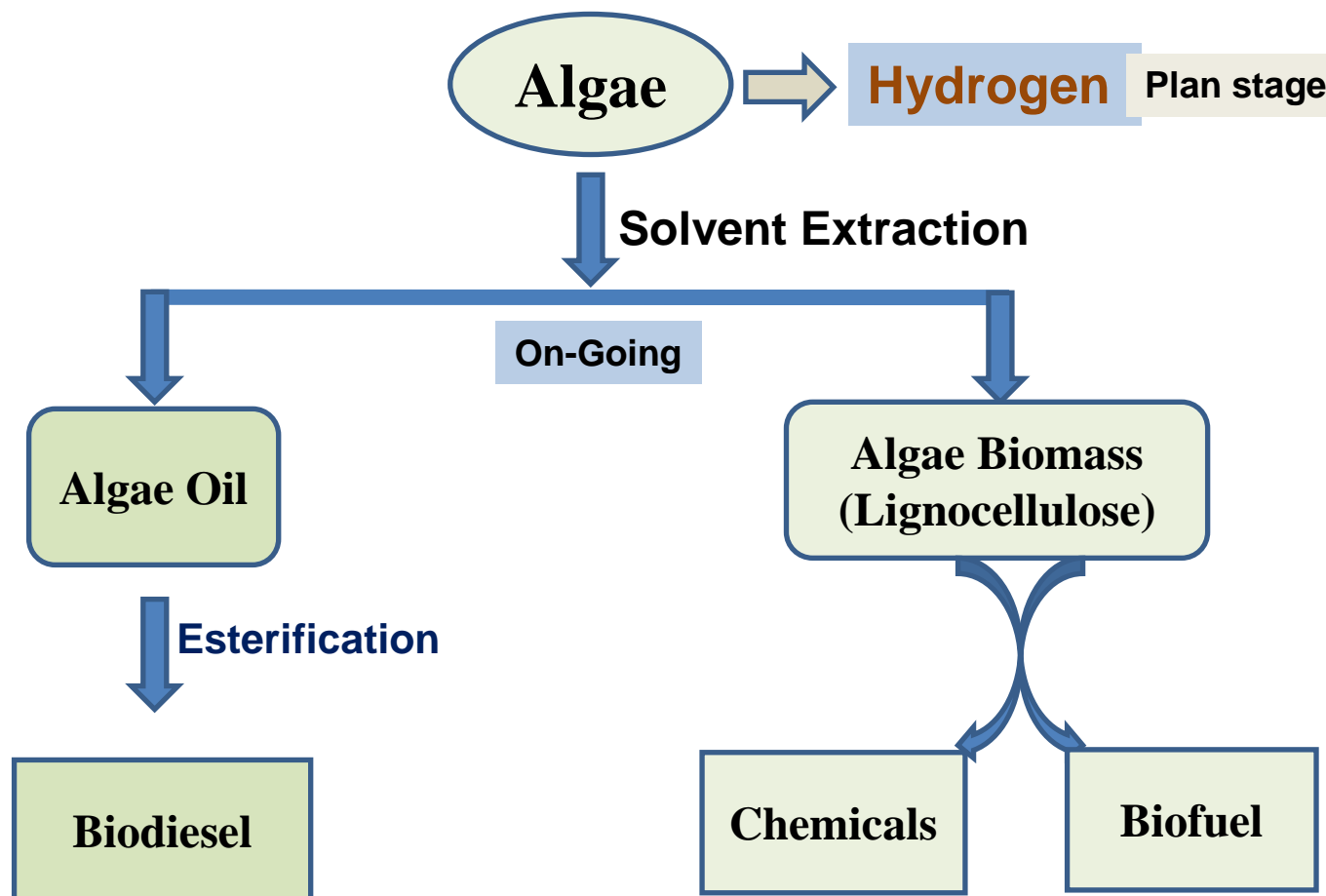
PROJECT IDEA

Fork to farm Fork to farm Fork to farm Fork to farm



Chlamydomonas

Overexpression
of newly
identified oil
biosynthetic
genes



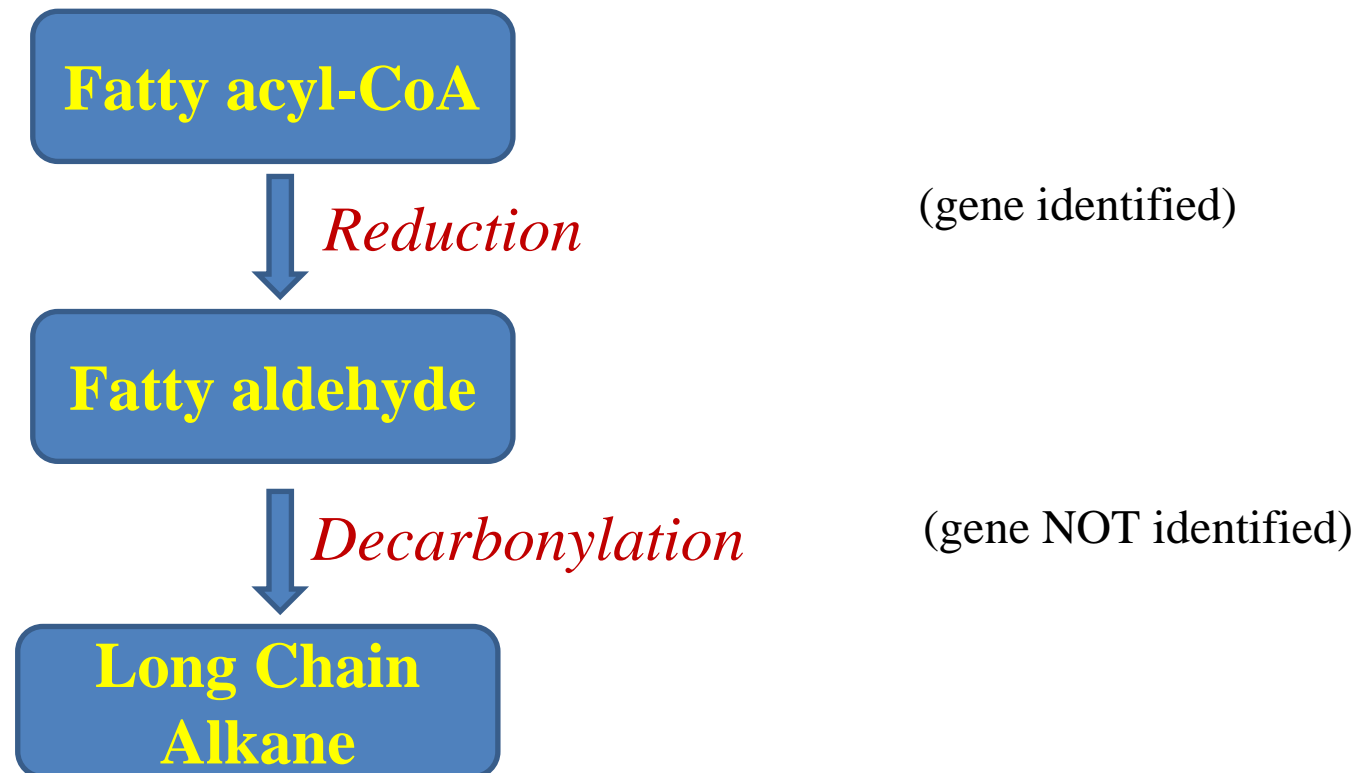
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PROJECT IDEA



Fork to farm Fork to farm Fork to farm Fork to farm

Engineering of hydrocarbon biosynthesis in plants



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PARTNER SOUGHT



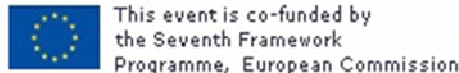
Fork to farm Fork to farm Fork to farm Fork to farm

* Fatty acid derived biofuel

- High oil content algae
- Hydrocarbon in seed oil

* Hydrogen production by algae

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CONTACT DETAILS



Fork to farm Fork to farm Fork to farm Fork to farm

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