Manufacturing of Biodegradable Polyglycolic Acid-Based Biomaterials
Koruma Klor Alkali San. ve Tic. A.Ş.

Koruma Tarım established as the first agro-chemical producer in Turkey

Koruma Tarım acquired by Araci family and start of Koruma Detergents

Hatay chlor-alkali plant started production

Koruma R&D department established

First Horizon 2020 project

1949

Koruma chlor-alkali Derince plant commenced operations with Mercury process

2000 - 2006

Modernisation of Derince plant, capacity increase and investment for membrane technology

2007

EPDK issues Koruma autoproducer licence for cogeneration, Denizli chloralkali plant start-up

2015

2016

2018

First TUBITAK project accepted
Vision:
To develop an integrated system to produce biodegradable implants from chlorine and chlorine based chemicals.

Motivation:
- Industrial production of PGA from chlorine is a novel concept.
- To prepare biocompatible materials with optimum mechanical properties.

Content:
- Novel manufacturing method of polyglycolic acid
- Blending of PGA due to application area
- Production of biomaterial
- Adaptation of manufactured implant to targeted area
Expected outcome:
- Novel method of Polyglycolic acid production from chlorinated products
- PGA-based biodegradable and biocompatible materials
- Formation of the material
- Patented production method and process

Impacts:
- Novel technique of PGA manufacturing will allow to obtain affordable biomaterials.
- Market expansion
- Greener world

Schedule:
Duration: 36 months
PARTNERS

Current Consortium:

- Koruma Klor Alkali
- Kale Kimya
- Ege University, Research and Application Center of Drug Development and Pharmocokinetics
Partner search:
We are looking for partners to involve our consortium to provide their experiences as the shown diagram.

3D printing technology, polymer production, analysis of chemicals, process design and partners contributing as end users.
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THANK YOU!