



# Treatment of the hospital wastewaters in Côte d'Ivoire and in Colombia by advanced oxidation processes

## Research objectives/pictures

University hospital center of Treichville, Abidjan, Ivory Coast



The treatment plant never operated properly



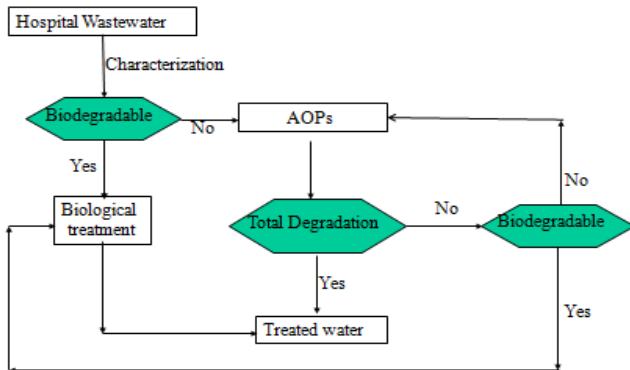
Divino Niño Hospital Center of Tumaco, Colombia



No hospital wastewater treatment plant



## Expected scientific contributions



## Project organisation and team

### Co-ordination

**Prof. Dr. César Pulgarin**

Group of Advanced Oxidation Processes  
École Polytechnique Fédérale de Lausanne, Switzerland  
**Doctoral Assistant: Stefanos Giannakis**

**Prof. Dr. Ouattara Lassine**

Laboratoire de chimie physique, UFR SSMT  
University of Cocody, Abidjan, Ivory Coast

**Doctoral Assistants:**

1. Appia Foffié Thiery Auguste
2. Gnamba Corneil Quand-Même

**Prof. Dr. Torres Ricardo**

Grupo de Investigación en Remediación Ambiental y Biocatálisis  
University of Antioquia, Medellín, Colombia

**Doctoral Assistant: Paola Villegas Guzmán**

## Development relevance

Innovative, efficient but sustainable techniques by (AOPs) → **treatment of hospital wastewater**

- UVC/H<sub>2</sub>O<sub>2</sub>
- Fenton / Photo-Fenton
- Photo-Fenton/ultrasound and
- Electrochemical processes

Wastewater reaches the end users → constitutes a **threat** against human health → Exposed to **diseases** and **toxic/risk substances**.

**Ultimate goal: Sustainable solutions for such problems in each context.**