Machine Learning in Public Health and Preventive Medicine

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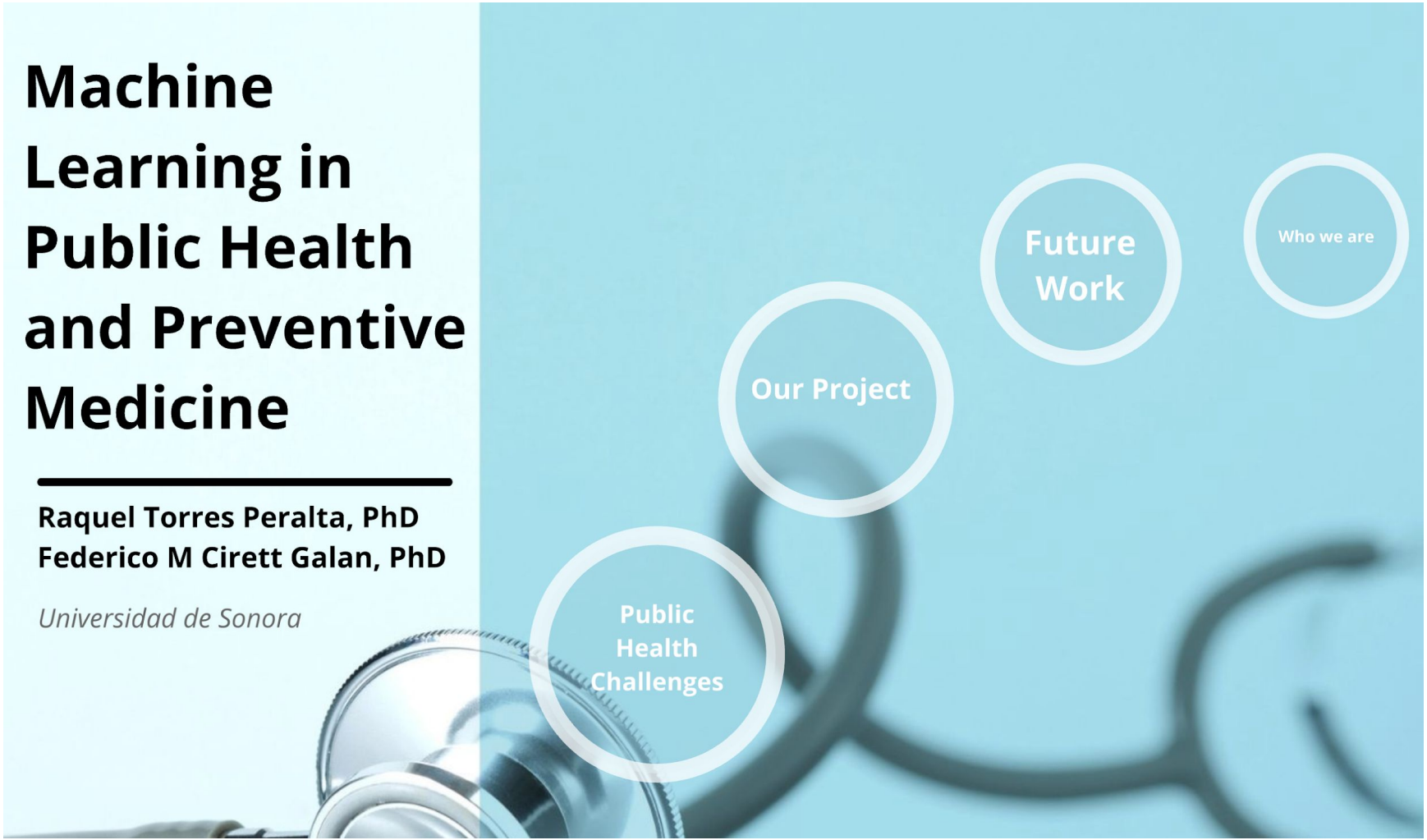


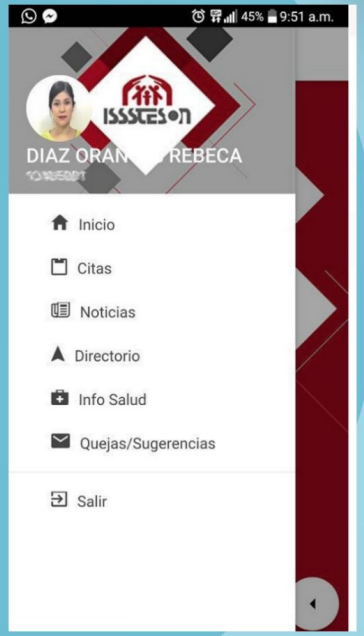

Public Health Challenges
Population Growth
High Cost of Medical Attention
Need of more efficient services
ISSSTESON Mobile App and Data

Mobile App
Mi Isssteson

Mobile App to provide custom information as:

- Epidemiological outbreak alert
- Preventive Medicine Campaigns
- News

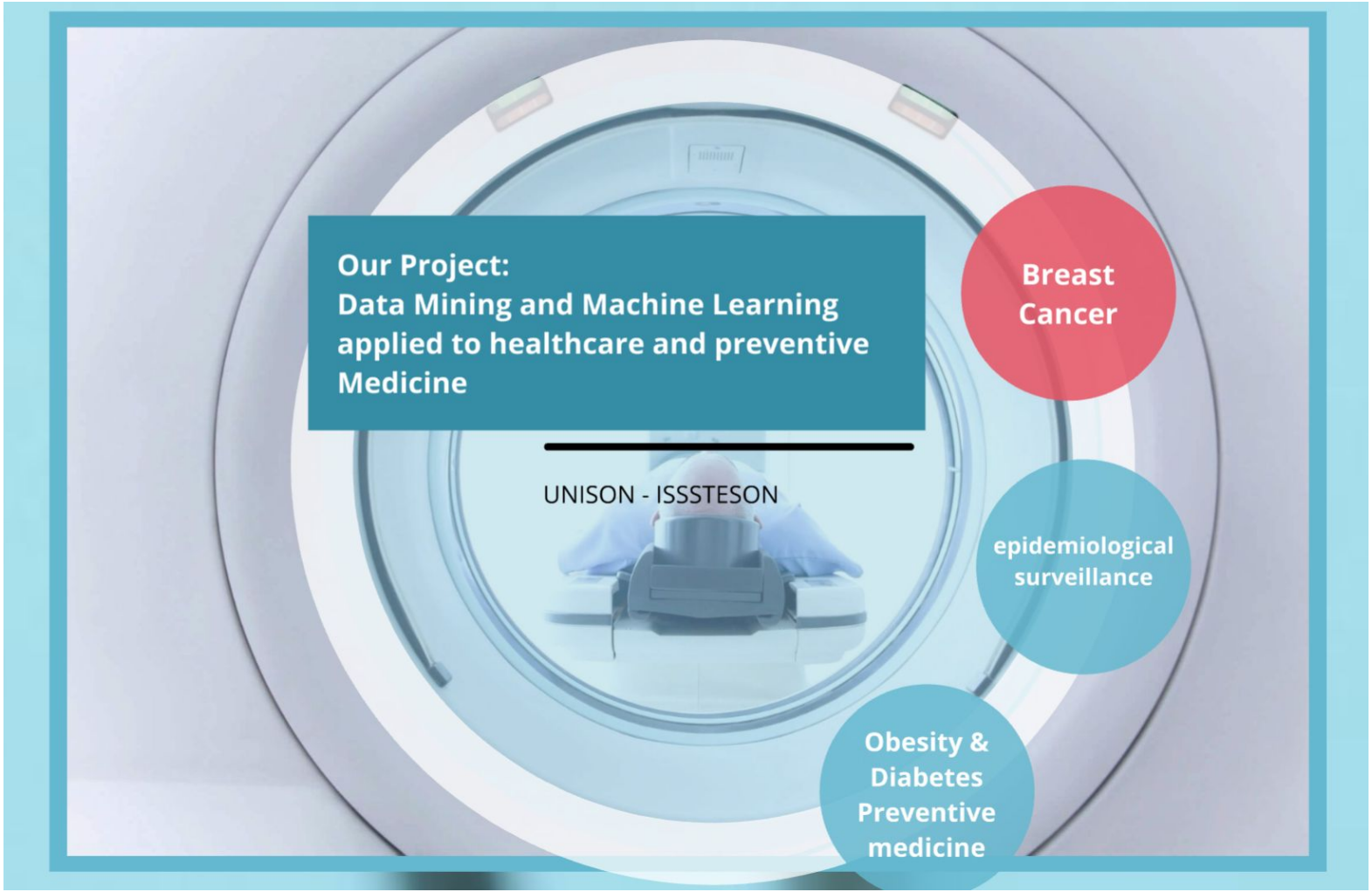
... And more



Data

Data

Medical records of more than 180,000 patients 2011-2017

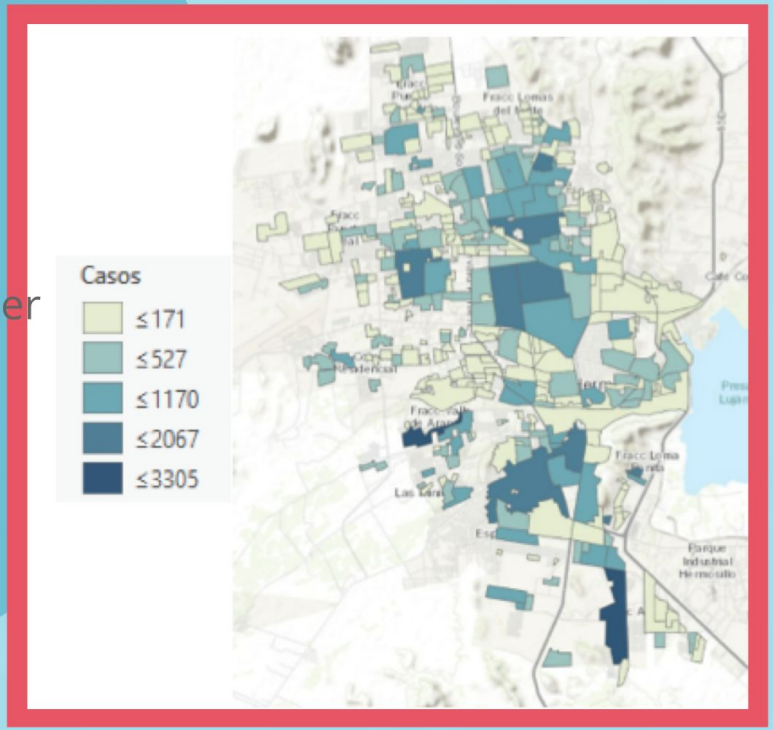

Our Project:
Data Mining and Machine Learning applied to healthcare and preventive Medicine
UNISON - ISSSTESON
Breast Cancer
epidemiological surveillance
Obesity & Diabetes Preventive medicine

Breast Cancer

- Evaluation of Procedures
- Response to medical treatment
- Who is at risk?

Epidemiological Surveillance

- Georeferential analysis
- Outbreak alert (Mobile App)
- Incidence of diseases and other factors
- Clustering Algorithms for recurrent diseases



Obesity & Diabetes

Segmentation for Preventive Medicine Campaigns

Clustering Algorithms to define groups according to their characteristics

Who is at risk?

Future Work

Machine Learning for Medical Diagnostics

Time series analysis for treatment evaluation and simulation for a better prognosis

Analysis of other diseases

Drug-Drug Interaction

Our Team

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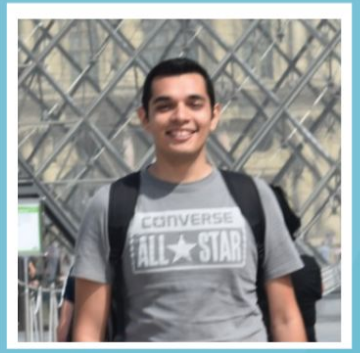

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