

INFORENSIC

KIT FOR OBTAINING A TISSUE
SAMPLE FROM A DENTAL PIECE.

UA
00012

MARKET

The target market for this technology are the forensic institutes, criminal brigades and research centers. According to a report published by the Servicio Médico Legal (SML, 2010), 3.000 bone samples are analyzed annually, all of which could be replaced by dental samples. Each kit contains the necessary materials to analyze ten teeth, reaching estimated sales of 300 kits per year in Chile. The Chilean market size is of \$600 thousand dollars, while the Peruvian market reaches \$1.2 million dollars. There is also a high social impact for the families of accident and disaster victims.

UNMET NEED

Forensic methods currently used in criminal investigations have several limitations. Most genomic DNA extraction from teeth protocols completely destroy the tooth, leading to a loss of evidence, making it impossible to repeat the study in case of doubt or to confirm these. Also, it's not always possible to extract the required amount of genomic DNA. As the method for DNA extraction involves the destruction of the tooth, the problem isn't only that the tooth is lost, but that there is a high risk of contaminating the genomic DNA obtained, which is a great loss when it's the only evidence available.



Universidad de

los Andes



**DIRECCIÓN
DE INNOVACIÓN**

SOLUTION

This kit is for obtaining a sample from a dental piece, from which DNA may be obtained to carry out multi-analysis: identity genetic markers, post mortem interval and toxicological analysis. The method generates minimum impact on the tooth, it's faster and requires less equipment to process the sample. The preservation of the original dental piece gives the opportunity to validate preliminary results by repeating the process.

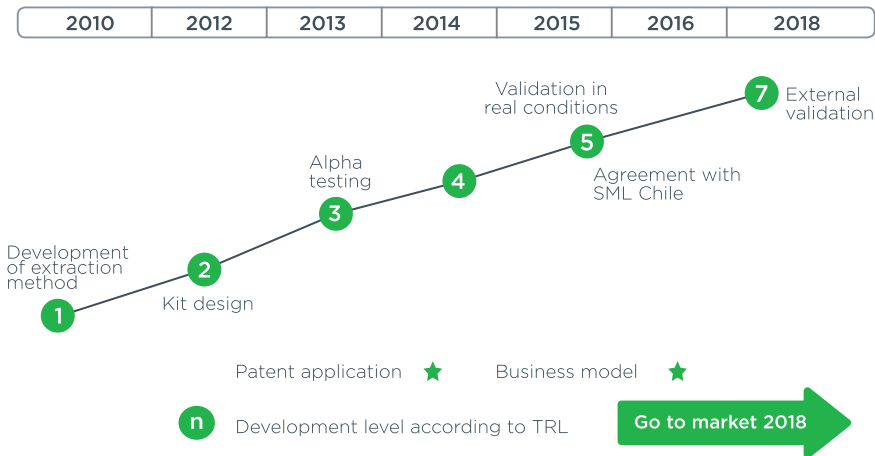
ADVANTAGES

- Faster method, samples may be obtained in shorter time periods.
- Lower cost and contamination compared to bone as a source of genomic material.
- Conservation of original dental sample.
- Keeps forensic evidence.

INTELLECTUAL PROPERTY

Patent application in progress.
US61/826,558 and PCT/IB2014/061568

DEVELOPMENT STAGE



BUSINESS SUMMARY DEPARTMENT OF INNOVATION

The Dirección de Innovación of the Universidad de los Andes seeks to support, canalize and efficiently manage the results from research conducted at the University to the public and private sector, both national and international. This is done in order to promote the transfer and application of the knowledge generated in the University so as to benefit the society and contribute to the economic development.

[INNOVACION.UANDES.CL](http://www.innovacion.uanDES.cl)

PROJECT DIRECTOR

Patricio Carrasco Tapia, DDS.

> His research areas include dental health, legal framework and the contribution of forensic dentistry in forensic identification and criminalistics.

RESEARCH TEAM

Carolina Inostroza, DDS, MsC

CONTACT

Anil Sadarangani, MBA, Ph.D.
T: +56 2 2618 2102
E: anils@uanDES.cl

