INNOVACIÓN UANDES

2022 - 2023

UANDES

Technology

Portfolio

This document presents the portfolio of UANDES technologies developed by our researchers and spin-offs.

What can you find in this portfolio?

- **Categorization:** The technologies have been thoughtfully categorized by industry and product category, making it easier for you to explore and identify the ones that align with your interests.

- **Development Stage and Intellectual Property Strategy:** Each technology is accompanied by crucial information regarding its current development stage, providing insights into its readiness for real-world application. Additionally, the intellectual property strategy employed for each innovation is outlined to protect and promote their uniqueness.

- **Sustainable Impact:** As part of our continuous commitment to sustainability, this year, we have incorporated the United Nations' Sustainable Development Goals (ODS). Each technology is linked to the specific ODS it contributes to, underscoring our dedication to addressing global challenges.

- **Technological Transfer Success Stories:** We proudly showcase success stories of technological transfers, denoted with a green mark, indicating their successful transition from research to practical implementation (exit).

OUR TECHNOLOGY PORTFOLIO

DEVELOPMENT STAGE
1· Preliminary results and proof of concept ●
2· Prototype ●
3· Exit / Market adoption ●

AGRICULTURE

CODE	TECHNOLOGY	DESCRIPTION	LEAD RESEARCHER	DS	IP	ODS
FOOD						
UA-M0012	Quinoa Plus	Bioactive peptides from quinoa proteins.	Javier Enrione	●	TS	2
UA-M0028	Starch-Cellulose Composites	New starch-cellulose biocomposite with low digestibility level and post-consumption glycemic index.	Paulo Díaz	●	TS	2
INDUSTRIAL PROCESS & PRODUCT						
UA-M0038	Gel-X: Hydrolyzed	Nutraceutical produced from cold species skin for the modulation of diabetes and hypertension.	Javier Enrione	●	TS	3
UA-M0033	Quinoa Flour+	Process to obtain enrich quinoa fluor.	Javier Enrione	●	TS	2
UA-M0048	QuinoaBoost	Standardized production of functional food ingrediet based on fractionated quinoa peptides for gestational diabetes mellitus (GDM) prevention.	Javier Enrione	●	TS	3
SOFTWARE						
UA-I0052	Smart Irrigation	Managing water supply for irrigation networks with mathematical programming even under uncertainty.	Rosa González	●	TS	13
UA-10040	Tidy Crop	Preliminary conceptual development of an ABM model for modernization of the Mapuche agricultural cooperative.	Juan Pérez	●	C	8

P: patent | **C:** copyright | **TM:** trade mark | **TS:** trade secret | **DP:** design patent

OUR TECHNOLOGY PORTFOLIO

EDUCATION

CODE	TECHNOLOGY	DESCRIPTION	LEAD RESEARCHER	DS	IP	ODS
PLATFORM						
UA-E0009	Dia+: Diamat	Platform to evaluation of math skills in students from 5th to 8th grade.	Macarena Larraín	●	TM	4
UA-E0011	Leer+ 2.0	A platform to enhance comprehension, expand vocabulary, and increase the interest for reading.	Pelusa Orellana	●	C | TM	4
UA-E0004 UA-E0008	**Dia+: Dialect***	Platform for the diagnosis of reading skills in students from kindergarten to 12th grade.	Pelusa Orellana	●	TM	4
SOFTWARE						
UA-E0012	Japi	Cognitive, emotional and social simulation for preschool children.	Jorge Gaete	●	TS	4
UA-P0003	PICTOS App	Inclusive mobile application.	Marcela Tenorio	●	TM	10

* Prize AVONNI 2021 Education

P: patent   **C:** copyright   **TM:** trade mark   **TS:** trade secret   **DP:** design patent

OUR TECHNOLOGY PORTFOLIO

ENERGY

CODE	TECHNOLOGY	DESCRIPTION	LEAD RESEARCHER	DS	IP	ODS
HARDWARE & SOFTWARE						
UA-I0037	Wind Tower Damage Monitoring System	Monitoring system for diagnosis and prognosis of structural damage in wind turbines.	Rodrigo Astroza	●	TS	7
SOFTWARE						
UA-I0046	Always Clean Photovoltaic Panel	Automatic detection system for dirt in photovoltaic panels based on images.	Gustavo Funes	●	TS	7

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OUR TECHNOLOGY PORTFOLIO

ENVIRONMENT

CODE	TECHNOLOGY	DESCRIPTION	LEAD RESEARCHER	DS	IP	ODS
INDUSTRIAL EQUIPMENT & HOME						
UA-I0053	UnitAir	Integrated high-efficiency system for the capture and destruction of indoor air pollutants.	Felipe Scott	●	TS	3
UA-I0010	Bio Indoor Air Purifier	Biological technology for removing indoor air pollutants.	Alberto Vergara	●	P	11
INDUSTRIAL PROCESS						
UA-M0027	Gel-X	Collagen obtained from cold species from the aquaculture industry that acts as a matrix for different uses.	Javier Enrione	●	P	14
PLATFORM						
UA-I0049	Arbocensus: Massive evaluation	Computational tool that allows obtaining a massive evaluation of urban trees.	José Francisco Delpiano	●	TS	11
UA-D0001	Legal Certainty	Computational tool for legal certainty to new project in environmental field.	José Ignacio Martínez	●	TS	16
SOFTWARE						
UA-I0045	Arbocensus App	Application to receive information about urban trees from citizens.	José Francisco Delpiano	●	TS	11
UA-I0050	Arbocensus: Tree Health	Computer vision for hazard tree identification and assessment.	José Francisco Delpiano	●	TS	15

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OUR TECHNOLOGY PORTFOLIO

GOVERMENT

CODE	TECHNOLOGY	DESCRIPTION	LEAD RESEARCHER	DS	IP	ODS
SOFTWARE						
UA-D0002	Indigenous Women's Rights	Automated analysis and visualization platform of jurisprudence and legal sources on gender and indigenous peoples.	Marcela Peredo	🔵	TS	16
UA-I0044	IA Analytics	Integrated information analytics system for the prosecution of crimes against property: artificial intelligence to detect criminal structures.	Carla Vairetti	🟡	TS	16

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OUR TECHNOLOGY PORTFOLIO

DEVELOPMENT STAGE
1· Preliminary results and proof of concept 🔵
2· Prototype 🟡
3· Exit / Market adoption 🟢

HEALTH

CODE	TECHNOLOGY	DESCRIPTION	LEAD RESEARCHER	DS	IP	ODS
COA (CLINICAL OUTCOME ASSESMENT)						
UA-M0021	R.A.D.A.R.	Implementation of a network for the care and detection of adolescents at risk of suicide.	Francisco Bustamante	🟡	C | TM	3
DENTAL DEVICE						
UA-O0030	BioFLOSS	A novel nano-enforced bioactive dental floss.	Ziyad Haidar	🟡	P	3
UA-O0022	Dental film: Oro-Aid3	Oral film indicated to prevent oral health. Designed with layers covered with polyelectrolytes loaded with different antimicrobial agents.	Ziyad Haidar	🟡	TS	3
UA-O0050	SockGEL 2.0	Oral injectable hydrogel for painless dental extraction, socket healing and prevention of alveolar osteitis.	Ziyad Haidar	🟡	TS	3
UA-O0004	X-Plant	A combinatorial device for the safe and sound retrieval of osseointegrated dental implants from the jawbone.	Ziyad Haidar	🟡	P	3
INDUSTRIAL PROCESS & PRODUCT						
UA-C0012 UA-C0018	**Veintis***	Biomanufactoring of tissue engineering vascular access for hemodialysis.	Juan Pablo Acevedo	🟡	P	3

* Prize AVONNI 2020 Health

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OUR TECHNOLOGY PORTFOLIO

HEALTH

CODE	TECHNOLOGY	DESCRIPTION	LEAD RESEARCHER	DS	IP	ODS
MEDICAL DEVICE						
UA-M0035	Bipolar Disorder Biomarkers	Using protein biomarkers in peripheral blood for the diagnosis of bipolar disorder and differentiation of depression (monopolar disorder).	Úrsula Wyneken	●	P	3
UA-H0004	ColoRisk-Personalize	Innovative personalized medicine-based risk stratification tool for colorectal cancer.	Javiera Cancino	●	TS	3
UA-M0045	EndoDetect	Non-Invasive diagnosis algorithm for endometriosis.	Lara Monteiro	●	TS	3
UA-H0001	Foot align	Medical device used in the field of kinesiology to determine the optimal range of alignment for the foot during a loaded radiograph.	Aaron Cortés	●	TS	3
UA-M0046	FootForcePro	Prototype device for measuring foot muscle strength and its correlation with clinical-biomechanical variables in runners.	Oscar Valencia	●	TS	3
UA-M0011	**Gel-X: Biocomposite***	Gel-X wound dressing to improve the regeneration of the wound healing.	Javier Enrione	●	P	3
UA-M0010	Gel-X: Life-Ink	Biomaterial made with Gel-X with unique properties for 3D tissue printing.	Juan Pablo Acevedo	●	P	3

* Prize AVONNI 2022 Health

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HEALTH

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MEDICAL DEVICE						
UA-M0044	Hard Bones	Creation of a matrix from salmon bones as a replacement for allografts to enable the use of L-PRF in osteogenesis techniques.	Javier Enrione	●	TS	3
UA-M0040	Ischemia Diagnosis	Method to diagnosis of cardiac ischemia based on the quantification of extracellular vesicles.	Carlos Irarrázabal	●	TS	3
UA-H0002	Maverick	Mask antiCOVID19 with Cu nanoparticles.	Aaron Cortés	●		3
UA-O0020	PregnosticA: Gestacional Diabetes Mellitus	Diagnososis tool that use oral fluids to predict the development of gestational diabetes in early pregnancy.	Alejandra Chaparro	●	P	3
UA-O0006	PregnosticA: Preeclampsia	Diagnososis tool that uses oral fluids to predict the development of preeclampsia in early pregnancy.	Alejandra Chaparro	●	P	3
UA-O0046	PregnosticA: Premature birth	Diagnosis tool that uses oral fluids to predict a premature birth in early pregnancy.	Alejandra Chaparro	●	P	3
UA-M0036	Prenatal NeuroBiomarkers	Biomarkers for early detection of prenatal stress-induced neurodevelopmental changes.	Federico Batiz	●	TS	3
UA-H0003	Safe Toilet	Hospital device for the safety of internal patients during their permanence in the toilet.	Ruby Anne Armaza	●	DP	3

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SOFTWARE						
UA-M0047	Floating SAMU Base Impact	Improving ambulance response times in Antofagasta and Coquimbo using a web application.	Marcela Garrido	🔵	TS	3
VACCINES, BLOOD & BIOLOGICS						
UA-O0008	Cellistem ER (Ranokure)	Biomaterial formulation for the encapsulation and release of allogeneic UC-MSC and growth factors in the regeneration of vascularized dental pulp tissues.	Claudia Brizuela	🟢	P	3
UA-M0043	Cellistem: Glycostem	Acellular product based on extracellular nanovesicles derived from MSC induced for the treatment of osteoarthritis.	Patricia Luz	🟡	P	3
UA-O0029	NanoCu	Copper-based nano-formulations for biomedical and regenerative medicine applications.	Ziyad Haidar	🟡	TS	3
UA-O0005	Radioprotect	Injectable solution to prevent and treat xerostomia caused by radiation theray in head and neck cancer patients.	Ziyad Haidar	🟡	P	3

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PRODUCTION AND INDUSTRIAL TECHNOLOGY

CODE	TECHNOLOGY	DESCRIPTION	LEAD RESEARCHER	DS	IP	ODS
INDUSTRIAL PRODUCT						
UA-M0016	Gel-X: Gel Coat	Edible coating that increases the shelflife of meat foods.	Javier Enrione	●	P	2
UA-I0043	Self Curing Concrete	Additive used in the curing process of concrete to produce a lighter concrete.	Álvaro Paul	●	TS	9

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TRANSPORT, TELECOMUNICATIONS, INFRASTRUCTURE

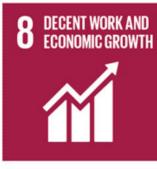| CODE	TECHNOLOGY	DESCRIPTION	LEAD RESEARCHER	DS	IP	ODS
PLATFORM						
UA-I0047	Power Lines Vegetation Management	System for monitoring and warning of invasion and growth of vegetation near electric transmission lines.	José Francisco Delpiano	🔵	TS	9
SOFTWARE						
UA-I0042	Transparency in Public Proceadures	Web platform that allows knowing the level of transparency that exists in the electronic procedures of tenders, services and calls for tenders.	Carla Vairetti	🔵	C	16

P: patent   **C:** copyright   **TM:** trade mark   **TS:** trade secret   **DP:** design patent

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INNOVACIÓN UANDES

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