### PABLO BAEZ BENAVIDES, PHD

## **EDUCATION** Present University of Chile Apr. 2021 Jan. 2018 Mar. 2013 Jun. 2013 Apr. 2011

Postdoctoral Researcher

Santiago, Chile

• Fondecyt postdoctoral research grant: Linguistic characterization of the Chilean clinical text: towards an automatic extraction of information

#### Ph.D. in Biomedical Sciences

University of Chile

Santiago, Chile

• Thesis: Genetic linkage and association analysis to identify genetic risk markers of cholelithiasis and gallbladder cancer in Chile.

#### M.S. in Biological Sciences, mention in Genetics

University of Chile

Santiago, Chile

• Thesis: Role of the TRPM4 channel in the development of prostate cancer in a transgenic murine model.

#### **B.S. Microbiology and Bioanalysis** May. 2009

University of Antioquia

Medellín, Colombia

### RESEARCH EXPERIENCE

Jul. 2021 Jan. 2021

Jan. 2003

#### Researcher

Center for Mathematical Modeling, University of Chile

Santiago, Chile

- Named entity recognition of tumor morphology and topography from surgical pathology reports.
- PI: Jocelyn Dunstan

Mar. 2021 Jan. 2020

#### Researcher

Center for Medical Informatics and Telemedicine, University of Chile

Santiago, Chile

- Automatic analysis of clinical narratives produced in Chile using neural networks.
- PI: Jocelyn Dunstan

Dec. 2020 Dec. 2019

#### Researcher

Center for Medical Informatics and Telemedicine, University of Chile

Santiago, Chile

- FONDEF IDeA I+D 2019 (2019-2021): "Deep-Pathology: Distributed TelePathology Platform Based on Blockchain and Collaborative Diagnosis Supported by Deep Learning".
- PI: Steffen Härtel Gründler



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#### CONTACT

- **☑** pablofbaez@gmail.com
- pablofbaez
- github.com/pablofbaez
- Ø pablofbaez.github.io

#### LANGUAGE SKILLS

R/RStudio	
Git/Github	
Bash	
LaTeX	
Docker	
Python	
SQL	

Made with the R package pagedown.

The source code is available at github.com/pablofbaez/cv.

Last updated on 2023-10-13.

Dec 2019 | Sep. 2018

#### **Postdoctoral Researcher**

 $Center for \, Medical \, Informatics \, and \, Telemedicine, \, University \, of \, Chile$ 

Santiago, Chile

• Systematic analysis of family history in free text of electronic medical records.

Apr. 2018 | Dec. 2017

#### PhD Candidate

Foundation for Advanced Biomedical Studies (FEBA), Faculty of Medicine, University of Chile

Santiago, Chile

• Analysis of germline and somatic genetic variants in patients with gallbladder cancer.

Jan. 2018 | Aug. 2014

#### PhD Student - Candidate

Cancer Genomics Laboratory, Faculty of Medicine, University of Chile

Santiago, Chile

- · Statistical analysis of socio-demographic information
- Genetic linkage analysis in families with multiple gallbladder cancer patients
- Fine mapping and genome wide association analysis in a case-control study

Feb. 2016 | Aug. 2015

#### **Graduate Student Fellow**

Institute of Medical Biometry and Informatics (IMBI), University Hospital Heidelberg

◆ Heidelberg, Germany

- Trained in specialized bioinformatics tools (R, PLINK and Mendel) to analyze genetic data
- Attended the EMBL Conference: Cancer Genomics
- Attended scientific talks organized by the University of Heidelberg and the German Center for Oncological Research (dkfz)

Jun. 2013 | Mar. 2012

#### Master's student

Laboratory of Molecular Cancer Pathology, Faculty of Medicine, University of Chile **♥** Santiago, Chile

- Histopathological analysis of prostate, lymph nodes and lung sections of a murine model of prostate cancer (TRAMP mice)
- Quantification of mRNA using real-time RT-PCR on TRAMP mice prostates



Dec. 2021 | Nov. 2019

#### **Diagnosis Foundation**

Advisory member of the Diagnosis Foundation

Santiago, Chile

- Support the diagnosis and research of unknown diseases
- Promote the knowledge generation through ethical and collaborative scientific research

## TEACHING EXPERIENCE

	Т	TEXOTINO EXTENSE	
Present   Sep. 2023	•	Undergraduate Teaching - Coordinating Professor School of Medical Technology, Universidad del Desarrollo  CB. Medical Informatics Course of the formative area of the Clinical Bioanalysis, Hematology as specialty, with 68 academic hours taught in the eighth semester of the	
Present	•	Undergraduate Methodological Advisor	
 Sep. 2023		School of Medical Technology, Universidad del Desarrollo	Santiago, Chile
		Research Seminar	
Present   Aug. 2020		Graduate Teaching - Coordinating Professor International Master in Medical Informatics, University of Chile • CA. Bioinformatics I and II	Santiago, Chile
Present		Undergraduate Teaching - Coordinating Professor	
 Aug. 2021		School of Medical Technology, Universidad del Desarrollo	Santiago, Chile
Aug. 2021		CB. Bioinformatics in Molecular Diagnostics	
		<ul> <li>Course of the formative area of the Morphophysiopathology and Cytoo specialty, with 102 academic hours taught in the eighth semester of th</li> </ul>	_
Jun. 2022		Master Thesis Supervisor	
		Master Thesis Supervisor International Master in Medical Informatics, University of Chile	Santiago, Chile
Jun. 2022   Jul. 2021		•	_
		International Master in Medical Informatics, University of Chile  • Automatic Staging of Distant Metastases in Imaging Reports Using Nat	ural Language
 Jul. 2021		International Master in Medical Informatics, University of Chile  • Automatic Staging of Distant Metastases in Imaging Reports Using Nat Processing  • Ricardo Ahumada's Master Thesis Supervisor together with Jocelyn Du	ural Language
Jul. 2021  Apr. 2022		International Master in Medical Informatics, University of Chile  • Automatic Staging of Distant Metastases in Imaging Reports Using Nat Processing	ural Language
 Jul. 2021		International Master in Medical Informatics, University of Chile  • Automatic Staging of Distant Metastases in Imaging Reports Using Nat Processing  • Ricardo Ahumada's Master Thesis Supervisor together with Jocelyn Du	ural Language unstan PhD  Santiago, Chile
Jul. 2021  Apr. 2022		International Master in Medical Informatics, University of Chile  • Automatic Staging of Distant Metastases in Imaging Reports Using Nati Processing  • Ricardo Ahumada's Master Thesis Supervisor together with Jocelyn Du  Master Thesis Examiner International Master in Medical Informatics, University of Chile  • Automatic transcription and extraction of key information from Spanis	ural Language unstan PhD  Santiago, Chile
Jul. 2021  Apr. 2022  Jul. 2021		International Master in Medical Informatics, University of Chile  • Automatic Staging of Distant Metastases in Imaging Reports Using Nat Processing  • Ricardo Ahumada's Master Thesis Supervisor together with Jocelyn Du  Master Thesis Examiner  International Master in Medical Informatics, University of Chile  • Automatic transcription and extraction of key information from Spanis clinical audios  • Maicol Fernandez's Master Thesis Examiner	ural Language unstan PhD  Santiago, Chile
Jul. 2021  Apr. 2022		International Master in Medical Informatics, University of Chile  • Automatic Staging of Distant Metastases in Imaging Reports Using Nati Processing  • Ricardo Ahumada's Master Thesis Supervisor together with Jocelyn Du  Master Thesis Examiner International Master in Medical Informatics, University of Chile  • Automatic transcription and extraction of key information from Spanis clinical audios  • Maicol Fernandez's Master Thesis Examiner  Graduate Teaching - Guest Professor	ural Language unstan PhD  Santiago, Chile
Jul. 2021  Apr. 2022  Jul. 2021		International Master in Medical Informatics, University of Chile  • Automatic Staging of Distant Metastases in Imaging Reports Using Nat Processing  • Ricardo Ahumada's Master Thesis Supervisor together with Jocelyn Du  Master Thesis Examiner  International Master in Medical Informatics, University of Chile  • Automatic transcription and extraction of key information from Spanis clinical audios  • Maicol Fernandez's Master Thesis Examiner	ural Language unstan PhD Santiago, Chile sh-language
Jul. 2021  Apr. 2022  Jul. 2021		International Master in Medical Informatics, University of Chile  • Automatic Staging of Distant Metastases in Imaging Reports Using National Processing  • Ricardo Ahumada's Master Thesis Supervisor together with Jocelyn Dumaster Thesis Examiner  International Master in Medical Informatics, University of Chile  • Automatic transcription and extraction of key information from Spanis clinical audios  • Maicol Fernandez's Master Thesis Examiner  Graduate Teaching - Guest Professor  International Master in Medical Informatics, University of Chile	ural Language unstan PhD Santiago, Chile sh-language
Jul. 2021  Apr. 2022  Jul. 2021		International Master in Medical Informatics, University of Chile  • Automatic Staging of Distant Metastases in Imaging Reports Using Nati Processing  • Ricardo Ahumada's Master Thesis Supervisor together with Jocelyn Du  Master Thesis Examiner International Master in Medical Informatics, University of Chile  • Automatic transcription and extraction of key information from Spanis clinical audios  • Maicol Fernandez's Master Thesis Examiner  Graduate Teaching - Guest Professor International Master in Medical Informatics, University of Chile  • CA. Statistical Analysis Methods II  • Language Resources Creation for NLP	ural Language unstan PhD Santiago, Chile sh-language
Jul. 2021  Apr. 2022  Jul. 2021  Jul. 2021		International Master in Medical Informatics, University of Chile  • Automatic Staging of Distant Metastases in Imaging Reports Using National Processing  • Ricardo Ahumada's Master Thesis Supervisor together with Jocelyn Dumaster Thesis Examiner  International Master in Medical Informatics, University of Chile  • Automatic transcription and extraction of key information from Spanis clinical audios  • Maicol Fernandez's Master Thesis Examiner  Graduate Teaching - Guest Professor  International Master in Medical Informatics, University of Chile  • CA. Statistical Analysis Methods II	ural Language unstan PhD Santiago, Chile sh-language
Jul. 2021  Apr. 2022  Jul. 2021  Jun. 2021		International Master in Medical Informatics, University of Chile  • Automatic Staging of Distant Metastases in Imaging Reports Using Nation Processing  • Ricardo Ahumada's Master Thesis Supervisor together with Jocelyn Du  Master Thesis Examiner International Master in Medical Informatics, University of Chile  • Automatic transcription and extraction of key information from Spanis clinical audios  • Maicol Fernandez's Master Thesis Examiner  Graduate Teaching - Guest Professor International Master in Medical Informatics, University of Chile  • CA. Statistical Analysis Methods II  • Language Resources Creation for NLP  Graduate Teaching - Guest Professor	ural Language unstan PhD Santiago, Chile ch-language Santiago, Chile

I really enjoy teaching and sharing my experiences in health data science.

**Undergraduate Student Supervisor** Dec. 2020 Santiago, Chile Faculty of Medicine, University of Chile Mar. 2020 • Research Unit I and II • 40 hour tutoring of second-year medical students • Guidance on the construction and execution of a short research project **Graduate Teaching - Guest Professor** Oct. 2018 Santiago, Chile International Master in Medical Informatics, University of Chile • CA. Biomedicine II • Genetic epidemiology studies in cancer Oct. 2018 **Undergraduate Teaching - Guest Professor** Santiago, Chile School of Medical Technology, Universidad del Desarrollo Aug. 2018 • CB. Scientific Bases of Medical Technology **Undergraduate Teaching - Guest Professor** Sep. 2017 Santiago, Chile School of Medical Technology, Universidad Mayor • CB. Applied Biotechnology Jan. 2017 **Undergraduate Student Supervisor** Santiago, Chile Faculty of Medicine, University of Chile Mar. 2016 • Research Unit I and II • 40 hour tutoring of second-year medical students • Guidance on the construction and execution of a short research project **Undergraduate Teaching - Auxiliary Guest Professor** May. 2015 Santiago, Chile School of Medical Technology, ICBM, University of Chile • Seminars on the application of Molecular Biology **PUBLICATIONS** 2023 E-Learning Module for Cytopathology Education Based on Virtual Microscopy Santiago, Chile Journal of the American Society of Cytopathology

Soon you will also find some notes about my work, talks and side projects in my blog.

# Amerindian Ancestry Proportion as a Risk Factor for Inflammatory Bowel Diseases: Results from a Latin American Andean Cohort

• Cubillos, L., Diaz, E., Báez, P., Gutiérrez, L., Molina C., Härtel, S.

Frontiers in Medicine

Santiago, Chile

- Pérez-Jeldres, T., Magne, F., Ascui, G., Alvares D., Orellana, M., Álvarez-Lobos, M., Hernández-Rocha, C., Azócar, L., Aguilar, N., Espino, A., Estela, R., Escobar, S., Zazueta, A., Baez, P., Silva, V., De La Vega, A., Arriagada, E., Pavez-Ovalle, C., Diaz-Asencio, A., Travisany, D., ... Bustamante, M.L.
- (in press)

• (in press)

2023

2023

Genotype Prevalence of Lactose Deficiency, Vitamin D Deficiency, and the Vitamin D Receptor in a Chilean Inflammatory Bowel Disease Cohort: Insights from an Observational Study

International Journal of Molecular Sciences

Santiago, Chile

Pérez-Jeldres, T., Bustamante, M. L., Segovia-Melero, R., Aguilar, N., Magne, F., Ascui, G.,
 Uribe, D., Azócar, L., Hernández-Rocha, C., Estela, R., Silva, V., De La Vega, A., Arriagada,
 E., Gonzalez, M., Onetto, G.-F., Escobar, S., Baez, P., Zazueta, A., Pavez-Ovalle, C., ...
 Álvarez-Lobos, M.

DOI 10.3390/ijms241914866

2023

Genome sequencing reveals molecular subgroups in oral epithelial dysplasia

Brazilian Oral Research

Santiago, Chile

 Márquez A., Mujica I., Jordan N., Báez P., Tarquinio S., Nunes J., Adorno D., Martínez B., Morales-Pison S., Fernandez-Ramires R.

DOI 10.1590/1807-3107bor-2023.vol37.0063

2022

Natural language processing for clinical text in Spanish: The case of waiting lists in Chile

Revista Médica Clínica Las Condes, 2022, vol. 33, no 6, p. 576-582.

• Báez, P., Arancibia, A. P., Chaparro, M. I., Bucarey, T., Núñez, F., & Dunstan, J.

DOI 10.1016/j.rmclc.2022.10.002

2022

Ethnicity influences phenotype and clinical outcomes: Comparing a South American with a North American inflammatory bowel disease cohort

 Pérez-Jeldres T, Pizarro B, Ascui G, Orellana M, Cerda-Villablanca M, Alvares D, De La Vega A, Cannistra M, Cornejo B, **Báez P**, Silva V, Arriagada E, Rivera-Nieves J, Estela R, Hernández-Rocha C, Álvarez- Lobos M, Tobar F.

DOI 10.1097/MD.0000000000030216

2022

Cáncer de vesícula en colecistectomías de la región de Tarapacá. Análisis según pertenencia étnica

Revista Médica de Chile, 150(9).

Santiago, Chile

 Fonseca C, M., García R, J., Csendes J, A., Calcagno Z, S., Ibaceta O, D., Báez B, P., & Marcelain C, K.

DOI 10.4067/S0034-98872022000901131

2022

Automatic support system for tumor coding in pathology reports in Spanish

Preprint available at SSRN 3982259

Santiago, Chile

• Villena, F., Báez, P., Peñafiel, S., Rojas, M. & Dunstan, J.

DOI 10.2139/ssrn.3982259

Automatic Extraction of Nested Entities in Clinical Referrals in Spanish 2022 ACM Transactions on Computing for Healthcare (HEALTH), 2022, vol. 3, no 3, p. 1-22. Santiago, Chile • Báez, P., Bravo-Marquez, F., Dunstan, J., Rojas, M. & Villena, F. DOI 10.1145/3498324 Construcción de recursos de texto para la identificación automática de 2021 información clínica en narrativas no estructuradas Santiago, Chile Revista Médica de Chile, 149(7). • Báez, P., Villena, F., Zúñiga K., Jones N., Fernández G., Durán, M. & Dunstan, J. DOI 10.4067/s0034-98872021000701014 Prevalencia de colecistolitiasis y cáncer de vesícula en una población rural 2020 Aymara de Chile Santiago, Chile Revista Médica de Chile, 148(10). • Fonseca C, M., Baéz B, P., Csendes J, A., Calcagno Z, S., Marcelain C, K., Vargas M, P., García R, J., & Barlaro F, T. DOI 10.4067/S0034-98872020001001398 The Chilean Waiting List Corpus: a new resource for Clinical Named Entity 2020 Recognition Proceedings of the 3rd Clinical Natural Language Processing Workshop (pp. 291-300) Santiago, Chile • Báez, P., Villena, F., Rojas, M., Durán, M., & Dunstan, J. • Best Paper Session at the 3rd Clinical NLP Workshop - EMNLP Conference 2020 DOI 10.18653/v1/2020.clinicalnlp-1.32 ABCB1/4 Gallbladder Cancer Risk Variants Identified in India Also Show Strong 2020 **Effects in Chileans** Santiago, Chile Cancer Epidemiol. 2020 Apr;65:101643. • Boekstegers F., Marcelain K., Barahona C., **Báez P.**, Müller B., et al. DOI 10.1016/j.canep.2019.101643 TRPM4 regulates Akt/GSK3-β activity and enhances β-catenin signaling and 2018 cell proliferation in prostate cancer cells Santiago, Chile Mol Oncol. 2018 Feb; 12(2):151-165. • Sagredo, A. I., Sagredo, E. A., Cappelli, C., Báez, P., Rodrigo, A. M., et al. DOI 10.1002/1878-0261.12100

2017		Subtypes of Native American ancestry and leading causes of death: Mapuche ancestry-specific associations with gallbladder cancer risk in Chile			
		PLoS Genet 13(5): e1006756.	Santiago, Chile		
		• Lorenzo Bermejo J, Boekstegers F, González Silos R, Marcelain K, <b>B</b>	<b>áez P.</b> , et al.		
		DOI 10.1371/journal.pgen.1006756			
2014		Mast Cell Infiltration and Kit and Protease Expression During Progression of a Transgenic Prostate Cancer Murine Model (TRAMP)			
	Journal of Comparative Pathology, 150(1), 88.		Santiago, Chile		
		• González, C., Armisén, R., Stutzin, A., <b>Baez, P.</b> , Landerer, E., Paredes, R., Contreras, I., Muñoz, C.			
2012		Actualización en cáncer de próstata: generalidades y diagnóstico			
		Medicina & Laboratorio, 18, 7-8.	Santiago, Chile		
		• Báez, P., Armisén Yañez, R.			
2010		Colonización por Staphylococcus aureus resistente a metici de individuos de la comunidad	ilina en las manos		
		latreia, 23(1), 5-9.	• Medellín, Colombia		
		• Báez, P., Zapata Tamayo, M., Ramírez Pérez, A., Rúa Giraldo, A., & Jiménez Quiceno, J.			
	<b>P</b>	SCHOLARSHIPS & AWARDS			
Apr. 2021		Fondecyt Postdoctoral Research Grant			
•		National Agency for Research and Development - ANID	Santiago, Chile		
Nov. 19		Best Paper			
2020		3rd Clinical Natural Language Processing Workshop. Paper title: The Chilean Waiting List Corpus: a new resource for Clinical Named Entity Recognition.			
Sep. 2018		Postdoctoral Bridge Scholarship			
		Biomedical Neuroscience Institute (BNI), University of Chile	Santiago, Chile		
Jul. 2015		Scholarship for Internship Abroad			
		MECESUP Program Uch1304, University of Chile	Santiago, Chile		
Mar. 2013		CONICYT National PhD Scholarship for Foreigners			
		Ministry of Education, Government of Chile	Santiago, Chile		
Jun. 2013		Master's approval with maximum distinction			
		Postgraduate School, University of Chile	Santiago, Chile		
2008	•	Ten best results at national level according to academic pro			
		Ministry of Education, Republic of Colombia	Medellín, Colombia		