



<b>NAME:</b>	Roberta Petry Gorziza	<b>DATE:</b>	11/28/2023
<b>LABORATORY:</b>	Houston Forensic Science Center		
<b>JOB TITLE:</b>	Forensic Scientist I - Toxicology		

Indicate all disciplines in which you do casework:

<input type="checkbox"/>	Seized Drugs	<input type="checkbox"/>	Forensic Biology/DNA
<input type="checkbox"/>	Crime Scene	<input type="checkbox"/>	Latent Prints
<input type="checkbox"/>	Digital Forensics	<input checked="" type="checkbox"/>	Toxicology
<input type="checkbox"/>	Firearms	<input type="checkbox"/>	Forensic Audio/Video

List all categories or sub-disciplines in which you do casework:

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Texas Forensic Science Commission (TFSC) Licensing

Per TFSC section 651.203, starting January 1, 2019, the following disciplines are subject to licensing: Seized Drugs, Toxicology, Forensic Biology & Firearms/Toolmarks. If applicable, select the type of license issued by TFSC (Select N/A if not applicable):

<b>Type of License:</b>	
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Certifications:

Organization	Discipline	Type/Level (N/A if not applicable)

Education:

List all higher education institutions attended (list high school if no college degree has been attained)

Institution	Dates Attended	Major	Type of Degree Earned
Federal University of Rio Grande do Sul (Brazil)	March 2006 – February 2010	Biomedical Sciences	Bachelor of Science
Federal University of Rio Grande do Sul (Brazil)	April 2010 – March 2012	Genetics and Molecular Biology	Master Degree
Federal University of Rio Grande do Sul (Brazil)	July 2018 – March 2021	Pharmaceutical Sciences	Doctor of Philosophy

Other Training:

List continuing education, workshops, in service, and other formal training received. Please include the course title, source, and dates of training.

<ul style="list-style-type: none"> <li>Criminal Analysis and Forensic Sciences Course (480 hours), Post-Graduation Institute - Porto Alegre/Brazil, October 2014 – May 2016.</li> </ul>
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**Courtroom Experience:**

List the disciplines/sub-disciplines in which you have testified as an expert witness and indicate over what time period and approximately how many times you have testified in each.

Discipline or Sub-Discipline	Time Period	Times Testified

**Professional Affiliations:**

List any professional organizations of which you are or have been a member. Indicate any office(s) or positions held and the dates of these activities.

Organization	Member Status & Position(s) Held	Dates of Membership
American Academy of Forensic Sciences	Associate Member, Toxicology	February 2023 - Present

**Employment History:**

List all scientific or technical positions held, particularly those related to forensic science. List current position first. Be sure to indicate employer and give a brief summary of duties. Please list your dates of employment by month and year.

<b>Job Title:</b>	Forensic Scientist I - Toxicology	<b>Dates of Employment:</b>	October 2023 - Present
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<b>Employer:</b>	Houston Forensic Science Center
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**Provide a brief description of duties below:**

- Currently under training for blood alcohol analysis (expected completion date: March/2024).
- Performs routine chemical analysis of human biological specimens using chemical and instrumental methodologies to detect alcohol and drugs in biological matrices and liquid.
- Prepares accurate and precise notes and technical reports.
- Maintains and calibrates scientific instruments and follows quality control measures to ensure instruments meet required performance standards.
- Reviews work of other scientists and conduct administrative and technical review of casework if qualified.
- Performs experiments under supervision to troubleshoot analytical issues and to participate in development and validation of analytical methods as needed.
- Provides technical assistance to police officers, members of the district attorney's office, and other members of law enforcement agencies, and the criminal justice community.
- Testifies as an expert witness regarding analytical procedures and the scientific conclusions drawn from analysis.
- Partners with management and other staff to ensure other tasks are completed as assigned.



<b>Job Title:</b>	Postdoctoral Associate	<b>Dates of Employment:</b>	December 2021 – October 2023
<b>Employer:</b>	Florida International University, Miami/FL		
<b>Provide a brief description of duties below:</b>			
<ul style="list-style-type: none"><li>• Worked on a research project for the development of a prototype for the detection of <math>\Delta 9</math>-THC in oral fluid and for the differentiation between marijuana-type and hemp-type cannabis plants, using the Fast Blue BB colorimetric test.</li><li>• Administrative/management work for the Center for Advanced Research in Forensic Science (CARFS).</li><li>• Instructor for forensic courses (Forensic Analysis/Forensic Evidence/Forensic Science), teaching crime scene investigation and forensic chemistry topics.</li></ul>			

<b>Job Title:</b>	Independent Forensic Consultant	<b>Dates of Employment:</b>	July 2015 – July 2022
<b>Employer:</b>	Civil Court of Rio Grande do Sul State, Porto Alegre/Brazil		
<b>Provide a brief description of duties below:</b>			
<ul style="list-style-type: none"><li>• Elaborated forensic reports to provide scientific support in civil cases.</li><li>• Elaborated written responses to pre-established questions based on literature review and document analysis in the field of forensic toxicology, biomedical sciences, and questioned documents (signatures pattern analysis), per request of judges or lawyers.</li></ul>			

<b>Job Title:</b>	Visiting Research Scholar	<b>Dates of Employment:</b>	March 2019 – November 2019
<b>Employer:</b>	West Virginia University, Morgantown/WV		
<b>Provide a brief description of duties below:</b>			
<ul style="list-style-type: none"><li>• Received a Brazilian scholarship (CAPES) to develop research involving forensic toxicology (dried oral fluid spots, LC-MS/MS) as part of the Pharmaceutical Sciences PhD Program in Brazil.</li></ul>			

<b>Job Title:</b>	Project Manager Assistant	<b>Dates of Employment:</b>	March 2021 – August 2021 and September 2017 – September 2018
<b>Employer:</b>	Latin American Cooperative Oncology Group (LACOG), Porto Alegre/Brazil		
<b>Provide a brief description of duties below:</b>			
<ul style="list-style-type: none"><li>• Support in clinical research management, working in oncology clinical trials and observational studies and administrative activities.</li></ul>			



<b>Job Title:</b>	Forensic Science Intern	<b>Dates of Employment:</b>	February 2009 – February 2010
<b>Employer:</b>	Instituto Geral de Perícias (IGP, Porto Alegre/Brazil)		
<b>Provide a brief description of duties below:</b>			
<ul style="list-style-type: none"><li>Support in blood and semen human stains identification for DNA analysis.</li></ul>			

#### Other Qualifications:

List below any scientific papers authored or co-authored and/or scientific presentations given, research in which you have been involved, academic or teaching positions you have held, and any other information you consider relevant to your qualification as a forensic scientist.

##### Publications in the Forensic Science Field – First Author

1. Gorziza, R; Valdes, N; Tinoco, M; Almirall, J. Optimization and validation of the fast blue BB (FBBB) screening test for the detection of delta-9-tetrahydrocannabinol ( $\Delta^9$ -THC) in oral fluid. *Forensic Chemistry*, 2023, v. 35, p. 100514, <https://doi.org/10.1016/j.forc.2023.100514>.
2. Gorziza, R; Carvalho, CMB; Gonzalez, M; Ortiz, RS; Limberger, RP. Estudo de Tintas de Canetas Esferográficas: uma Revisão para a Abordagem Pericial em Documentoscopia Forense. *Brazilian Journal of Police Sciences*, 2022, v. 13, p. 207-234, <https://doi.org/10.31412/rbcp.v13i9.867>. [Brazilian Journal – Article in Portuguese]
3. Gorziza, R; Duarte, JA; Gonzalez, M; Arroyo-Mora, LE; Limberger, RP. A systematic review of quantitative analysis of cannabinoids in oral fluid. *Journal of Forensic Sciences*, 2021, v. 66 (6), p. 2104-2112, <https://doi.org/10.1111/1556-4029.14862>.
4. Gorziza, R; Cox, J; Limberger, RP; Arroyo-Mora, LE. Study of -9-tetrahydrocannabinol (THC) and cannabidiol (CBD) extraction from dried oral fluid spots (DOFS) and LC-MS/MS detection. *Journal of Cannabis Research*, 2021, v. 3, p. 30, <https://doi.org/10.1186/s42238-021-00088-8>.
5. Gorziza, R; Cox, J; Limberger, RP; Arroyo-Mora, LE. Extraction of dried oral fluid spots (DOFS) for the identification of drugs of abuse using liquid chromatography tandem mass spectrometry (LC-MS/MS). *Forensic Chemistry*, 2020, v. 19, p. 100254, <https://doi.org/10.1016/j.forc.2020.100254>.
6. Gorziza, R; Gonzalez, M; Carvalho, CMB; Ortiz, RS; Limberger, RP. Chemometric Approaches in Questioned Documents. *Brazilian Journal of Analytical Chemistry*, 2021, v. 9, p. 35-51, <https://doi.org/10.30744/brjac.2179-3425.RV-32-2021>.
7. Gorziza, R; Carvalho, CMB; Gonzalez, M; Ortiz, RS; Helfer, GA; Ferrão, M; Limberger, RP. Blue Ballpoint Pen Inks Differentiation using Multivariate Image Analysis of Digital Images Captured with PhotoMetrix PRO®. *Brazilian Journal of Forensic Sciences, Medical Law and Bioethics*, 2020, v. 9, p. 331-355, [http://dx.doi.org/10.17063/bjfs9\(3\)y2020331](http://dx.doi.org/10.17063/bjfs9(3)y2020331).
8. Gorziza, R; Carvalho, CMB; Gonzalez, M; Leal, LB; Korndörfer, T; Ortiz, RS; Trejos, T; Limberger, RP. Blue and Black Ballpoint Pen Inks: a Systematic Review for Ink Characterization and Dating Analysis. *Brazilian Journal of Forensic Sciences, Medical Law and Bioethics*, 2019, v. 8, p. 113-138, [http://dx.doi.org/10.17063/bjfs8\(3\)y2019113](http://dx.doi.org/10.17063/bjfs8(3)y2019113).



9. Gorziza, R. Estudo das características gráficas mais frequentemente alteradas em disfarces de assinaturas. Revista Brasileira De Criminalística, 2016, v. 6, p. 52, <http://dx.doi.org/10.15260/rbc.v6i1.146>. [Brazilian Journal – Article in Portuguese]

#### Publications in the Forensic Science Field – Co-author

1. Duarte, JA; Gorziza, R; Gonzalez, M; Picanço, JMA; Limberger, RP. Immunochromatography screening devices for cannabinoids in oral fluid sample. Brazilian Journal of Pharmaceutical Sciences, 2023, v. 59, p. 1-17, <https://doi.org/10.1590/s2175-97902023e20555>

2. Gonzalez, M; Gorziza, R; John, DK; Duarte, JA; Limberger, RP; Ferrão, M; Mariotti, KC; Mendez, ASL. The Main Compounds and Major Methods in Latent Fingermark Aging Analysis: a Short Review. Drug Analytical Research, 2023, v. 7, p. 1, <https://doi.org/10.22456/2527-2616.133299>

3. Gonzalez, M; Gorziza; Duarte, JA; Mariotti, KC; Ortiz, RS; Limberger, RP. Escola de Inverno de Ciências Forenses: uma perspectiva prática da tríade ensino, pesquisa e extensão. Revista Brasileira de Criminalística, 2023, v. 12, p. 28-40, <http://dx.doi.org/10.15260/rbc.v12i2.547>. [Brazilian Journal – Article in Portuguese]

4. Jacques, ALB; Santos, MK; Gorziza, R; Limberger, RP. Dried matrix spots: an evolving trend in the toxicological field. Forensic Science Medicine and Pathology, 2022, 18(1):86-102, <https://doi.org/10.1007/s12024-021-00434-5>.

5. Gonzalez, M; Gorziza, R; Mariotti, KC; Limberger, RP. Methodologies Applied to Fingerprint Analysis. Journal Of Forensic Sciences, 2020, v. 65, p. 1556-4029.14313, <https://doi.org/10.1111/1556-4029.14313>.

6. Gonzalez, M; Borille, BT; Santos, MK; Gorziza, R; Ramos, MF; Rose, NM; Fett, MS; Ortiz, RS; Camargo, FAO; Ferrão, MF; Limberger, RP. Application of Chemometric Tools on Cannabis Samples Analyzed by the FTIR-ATR Method. Brazilian Journal of Forensic Sciences, Medical Law and Bioethics, 2020, v. 9, p. 477-498, [https://doi.org/10.17063/bjfs9\(4\)y2020477-498](https://doi.org/10.17063/bjfs9(4)y2020477-498).

7. Duarte, JA; Gonzalez, M; Gorziza, R; Caffarate, LM; dos Santos, LCV; Buttenbender, SL; Ramos, MF; Camargo, FAO; Ferrão, M; Limberger, RP. Application of Multivariate Analysis on Digital Images of Cannabis sativa L Extracts. Brazilian Journal of Police Sciences, 2020, v. 11, p. 25-48, <https://doi.org/10.31412/rbcp.v11i3.729>.

#### Presentations in the Forensic Science Field – First Author

1. Roberta Gorziza, Nicole Valdes, Marilyn Tinoco, and Jose Almirall. Detection of  $\Delta^9$ -tetrahydrocannabinol (THC) in Oral Fluid Using the Fast Blue BB (FBBB) Test. American Academy of Forensic Science (AAFS) Annual Conference 2023. Orlando, FL, February 2023.

2. Roberta Gorziza, Nicole Valdes, Marilyn Tinoco, and Jose Almirall. Fast Blue BB (FBBB) screening test applied to delta-9-tetrahydrocannabinol (THC) detection in oral fluid. Southeastern Regional ACS Meeting (SERMACS). Oral presentation. San Juan, Puerto Rico, October 2022.

3. Jose R. Almirall, Alexander Acosta, Ryan Capote, Nicole Valdes, Maira Kerpel dos Santos, Roberta Gorziza\*. Fast Blue BB and 4-Aminophenol Colorimetric/Fluorometric Tests for the Differentiation of Hemp-Type and Marijuana-Type Cannabis and for the Determination of THC in Oral Fluid. SCIX 2022. Oral presentation. Covington, KY, October 2022. \*Presenting author.

4. Roberta Gorziza, Nicole Valdes, Marilyn Tinoco, and Jose Almirall. The Fast Blue BB colorimetric test applied to delta-9-tetrahydrocannabinol (THC) detection in oral fluid. European Academy of Forensic Sciences (EAFS 2022). Poster presentation. Stockholm, Sweden, June 2022.



5. Roberta Gorziza, Aaron Tarone, Michael Chambers, Sarah Kerrigan, Adam Hall, and Jose Almirall. Center for Advanced Research in Forensic Science (CARFS) Reception at the American Academy of Forensic Science (AAFS) Annual Conference 2022. CARFS presentation. Poster presentation. Seattle, WA, February 2022.

6. Roberta Gorziza. The American Society of Crime Laboratory Directors (ASCLD) Lightning Talks. Forensic Research Committee. Oral Fluid Toxicology: Dried Oral Fluid Spots as Substrate for the Identification of Drugs of Abuse using LC-MS/MS. Oral presentation. Link: [https://www.youtube.com/watch?v=XDC61szrnpA&list=PLcJytUig4FZJ95Cs\\_BoNivKDIW3otC3AP&index=13](https://www.youtube.com/watch?v=XDC61szrnpA&list=PLcJytUig4FZJ95Cs_BoNivKDIW3otC3AP&index=13), January 2022.

8. Roberta Gorziza. Pen ink Dating and Differentiation. Interforensics 2021 – Brazilian Academy of Forensic Science. Oral presentation. Foz do Iguacu, PR, Brazil, November 2021.

9. Roberta Gorziza; Carina Maria Bello de Carvalho; Marina Gonzalez\*; Rafael Scorsatto Ortiz; Gilson Augusto Helfer; Marco Antonio Ferrão; Renata Pereira Limberger, RP. Blue Ballpoint Pen Inks Differentiation using Multivariate Image Analysis of Digital Images Captured with PhotoMetrix PRO®. Differentiation of Ballpoint Pens using Chemometrics of Digital Images. Interforensics 2019 – Brazilian Academy of Forensic Science. Oral presentation. Sao Paulo, SP, Brazil, September 2019. \*Presenting author.

10. Roberta Gorziza. Study of the Most Common Graphical Characteristics Found in Signature Disguises. XIV Seminário Nacional de Documentoscopia – Brazilian Conference for questioned documents. Oral presentation. Belo Horizonte, MG, Brazil, September 2016.

#### Teaching

1. Co-Instructor for Forensic Evidence Class, Undergraduate Certificate in Forensic Science Program, and for Forensic Analysis Class, Master's in Forensic Science Program, Florida International University, August 2022 – December 2022.

- Online teaching (CANVAS) and practical activities for crime scene investigation, while Professor Karen Wittman taught the legal aspects in forensic science and moot court activity.

2. Co- Instructor for Forensic Science Class, Undergraduate Certificate in Forensic Science Program, Florida International University, January 2023 – April 2023.

- Weekly in-person classes of theory for different forensic chemistry topics, while Professor Dr. Bruce McCord taught laboratory classes.