

January 24, 2022

TO WHOM IT MAY CONCERN:

This letter constitutes my confirmation that **Andres M. Arias-Lorza, PhD**, was employed as a post-doctoral fellow in my research group at the Moffitt Cancer Center, Tampa, Florida, USA, from January 22, 2018 to May 25, 2021.

It was my pleasure to have Dr. Andres Arias-Lorza as a member of my group. During his years as a post-doctoral fellow in my group (<http://lab.moffitt.org/raghunand/>), he acquired and demonstrated substantial research experience and skills in medical image analysis. Andres has participated in several research projects involving radiologic image data that were collected in pharma-sponsored clinical trials of investigational drugs. The first of these was a Phase I clinical trial of crolibulin, a vascular disrupting agent, sponsored by EpiCept, which was published last year in *Scientific Reports* as a scientific paper with Andres as the first author. A second project is a Phase 2 study of PEGPH20, which is a PEGylated form of the enzyme hyaluronidase, sponsored by Halozyme Therapeutics, which is currently being written up as first-author paper on which also Andres will be first author. For the PEGPH20 study, Andres has developed a Decision Tree based model for analysis of pre-therapy images to predict which patient is likely to benefit from this enzymatic drug. A third project is a Phase 2 study of Onivyde®, a liposomal form of irinotecan, sponsored by Ipsen Pharmaceuticals, on which Andres will be second author once the in-review manuscript is accepted for publication.

A hallmark of the imaging data from all these clinical trials is that there was a lot of heterogeneity in the image quality across patients and across sites (despite the provision of an imaging manual to each site!). Rather than be daunted or disheartened by the challenge of spotty input data quality, Andres went to work to develop methods to pre-process images to correct for variations in image intensity (calibration), perform both global and local co-registration of images acquired intra-visit and inter-visit, even developing tools to make possible collaborative inspection and visualization of output data quality. Not to belabor the point, but Andres is painstakingly careful in his work and I have come to rely on him for projects that require bullet-proof data curation and harmonization.

Andres has a strong sense of responsibility and spirit of cooperation. He is excellent in comprehension, oral and written communications, and always ready to meet new challenges and respond with very carefully executed solutions. In the years that I have known Andres, I have found that he has an exceptionally strong technical background, excellent communication skills and a passion for detail-oriented work. It is my expectation that he will be a strong asset to any research group that he joins.

I recommend Andres without any reservations. Please do not hesitate to contact me if you have any questions or need further information.

Sincerely,



Natarajan Raghunand, Ph.D.
Director of Research, Dept. of Diagnostic & Interventional Radiology
Associate Member, Dept. of Cancer Physiology