Technology: Pressure-assisted molecular recovery (PAMR) of biomolecules, pressure-assisted antigen retrieval (PAAR), and pressure-assisted tissue histology (PATH)

VA ID Number: 08-003

Inventor: Timothy O’Leary

Location: Baltimore, MD

Topic: Diagnostics

USPTO Issue Date: 10/16/2012

Patent Number: 8,288,122

The VA has joint ownership with American Registry of Pathology and The United States as Represented by the Secretary of Defense on the behalf of the Armed Forces Institute of Pathology

Contact: Christopher.Drabik@va.gov

Abstract: A method is disclosed for reversing fixation-induced cross-linking in tissue specimens that have been preserved for histological examination. The method involves placing the fixed tissue in a liquid under elevated temperature and pressure conditions that are sufficient to reverse the fixation-induced cross-linking, restore antigenicity to proteins, and permit improved molecular and proteomic analysis of the preserved tissue specimen. Methods are also disclosed for processing tissues for histological examination under elevated pressure conditions that enhance the perfusion of liquid reagents into the tissue and reduce overall processing times.