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## Biomarkers for Port Wine Stain and Related Syndromes

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### BRIEF DESCRIPTION

Researchers at the University of California, Irvine (UC Irvine) have discovered specific biomarkers that will enable innovations in diagnosis, prognosis, monitoring, and therapy of port wine stain (PWS) and other related syndromes.

### FULL DESCRIPTION

Port wine stain (PWS) is the discoloration of human skin caused by vascular malformation. In fact, it has been reported that 3-5 children out of 1,000 live births may develop this condition. The current treatment of choice for this condition is PDL therapy, in which discoloration is alleviated by treating underlying blood vessels. However, PDL therapy is limited because the degree of PWS blanching from the procedure can be unpredictable and variable. It is difficult to achieve complete blanching due to recurrence of blood vessels in the treatment area post-PDL therapy. In fact, less than 10% of the patients achieve complete blanching.

UC Irvine researchers have invented a novel way to address the shortcomings of conventional PWS therapy. The UCI invention uses biomarkers specifically found on endothelial cells and exosomes. The biomarkers provide a way to monitor the progression of PWS and related syndromes as well as the prognosis of treatment post-therapy.

### SUGGESTED USES

- » Diagnosis: Identify patient populations
- » Prognosis: Screen patients prior to treatment
- » Monitoring: Examine progress/response of patients upon treatment
- » Treatment: Develop novel methods of treating PWS and related syndromes

### FEATURES/BENEFITS

- » Specific: Biomarkers will enable targeted therapy
- » Novel: Biomarkers will address the issue that there are no effective methods to either monitor the progress of PWS and related syndromes or make an efficient prognosis for PWS lesions after treatment.

### STATE OF DEVELOPMENT

Technology resides in the initial stages characterizing the utility of the biomarkers.

### PATENT STATUS

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### OTHER INFORMATION

#### CATEGORIZED AS

- » **Medical**
  - » Disease: Dermatology
- » **Research Tools**
  - » Other

#### RELATED CASES

2017-813-0

Country	Type	Number	Dated	Case
United States Of America	Published Application	20190371471	12/05/2019	2017-813

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