Biomedical Photoacoustic Imaging Patent Landscape

Description: This patent landscape focuses on photoacoustic imaging in biomedicine. Photoacoustic imaging is a safe, non-invasive, non-ionizing imaging technique. The technique offers several advantages and represents a great alternative to traditional medical imaging approaches. The innovation of photoacoustic imaging for biomedical purposes is mainly driven by the need to enhance the efficiency of the detection and diagnostic of cancer. The photoacoustic imaging technologies involve more than 100 different applicants and more than 900 patent families related to photoacoustic imaging have been published worldwide up to January 2015.

In the early 80s, the University of Arizona published the 1st patent transposing photoacoustic technology to biomedical imaging. But the technology only really emerged in 1997, especially after the publication of the patent introducing a time factor to the technology and thus allowing a three dimensional image reconstruction. Since 2010, a take off in the number of new applications is observed, indicating a strong and growing interest for the use of photoacoustic in imaging techniques. Photoacoustic imaging is a very promising technique for the medical field, especially for diagnostic and treatment cancers, and offers many advantages such as safety, great resolution, easy-to-use and low cost. Thus the number of new patent applications in the domain is expected to keep rising.

Key Features Of The Report:

The report provides essential patent data for biomedical photoacoustic imaging including:
- Time evolution of patent publications and countries of patent filings.
- Current legal status of patents.
- Ranking of main patent applicants.
- Joint developments and IP collaboration network of main patent applicants.
- Key patents.
- Granted patents near expiration.
- Relative strength of main companies IP portfolio.
- Photoacoustic imaging IP profiles of 15 major companies with key patents, partnerships, and IP strength and strategy.

Objective Of The Report:

- Understand the IP landscape for biomedical photoacoustic imaging.
- Identify key patents.
- Understand trends in biomedical photoacoustic imaging IP.
- Classify the major players in biomedical photoacoustic imaging IP and the relative strength of their patent portfolio.
- Identify new players in biomedical photoacoustic imaging IP.
- Identify IP collaboration networks between key players.

* The report also provides an extensive Excel database with all patents analyzed in the study.

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Fujifilm VisualSonics
Seno Medical Instruments
Philips
Volcano
Covidien
Mallinckrodt Pharmaceuticals
Samsung
ENDRA Life Sciences
TomoWave Laboratories
National Institutes of Health
University of Texas
Helmholtz Zentrum München
South China Normal University
Jiangxi Sciences & Technic Normal University
Shenzhen Institute of Advanced Technology

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Methodology for Key Patent Identification

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