

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CURIUM US LLC,

Petitioner,

v.

**UNIVERSITÄT HEIDELBERG AND THE EUROPEAN ATOMIC
ENERGY COMMUNITY (EURATOM), REPRESENTED BY THE
EUROPEAN COMMISSION,**

Patent Owners

Case No. IPR2025-01582

Patent No. 10,980,901 B2

DECLARATION OF PROF. DR. FELIX MOTTAGHY

1. I, Dr. Felix Mottaghy, submit this declaration in support of the above-referenced proceeding.
2. I have personal knowledge of the matters set forth in this declaration unless otherwise indicated.
3. I am a Professor of Nuclear Medicine and Head of the Department of Nuclear Medicine at RWTH University Hospital Aachen.
4. The statements in this declaration are true and correct to the best of my knowledge and belief and are based on my own personal education, training, and experience unless otherwise indicated.

I. PERSONAL BACKGROUND

5. I am a nuclear medicine physician specializing in the diagnosis and treatment of various diseases using nuclear medicine such as radiopharmaceuticals and radiotheranostics. I also do research in prostate cancer treatments, brain tumor imaging, and developing innovative radiotracers for breast cancer.
6. I obtained my medical degree from Rhine-Westphalia University of Technology Aachen in 1996 and later complete a Doctor of Medical Sciences degree in 1998 and finalized my specialty training in nuclear medicine in 2003. I did my practical medical training at the University of Utah and the University Hospital Aachen. From 2000 to 2001, I held the German Research Foundation (DFG) postdoctoral fellowship at Harvard Medical School in Boston, where I

conducted neuroscience and imaging-related research. I have also worked at the University Hospital Ulm in Germany and at the University Hospitals Leuven (KU Leuven) in Belgium, practicing nuclear medicine and molecular imaging.

7. I have been a Board member and Committee Coordinator/Internal Groups Officer for the European Association of Nuclear Medicine (EANM), serve currently as president-elect of the EANM and I am a member of the German Society of Nuclear Medicine (DGN) and the Society of Nuclear Medicine and Molecular Imaging (SNMMI)

THE '901 PATENT AND THE 2016 PAPER

8. I have been an author on over 600 publications, including the 2016 Journal of Nuclear Medicine publication titled “ ^{225}Ac -PSMA-617 for PSMA-Targeted α -Radiation Therapy of Metastatic Castration-Resistant Prostate Cancer.”
Clemens Kratochwil et al., *^{225}Ac -PSMA-617 for PSMA-Targeted α -Radiation Therapy of Metastatic Castration-Resistant Prostate Cancer*, 57 J. Nuclear Medicine 1941 (2016) (the “Kratochwil 2016” paper). My involvement in the paper was limited to providing the history of one of the patients and diagnostic images before and after treatment (Figure 3 in the publication) and reviewing the paper. But I had no involvement in determining the dosing methods or regimen or the creation of the radiopharmaceutical used, the ^{225}Ac -PSMA-617.

9. At the time of my involvement in the Kratochwil 2016 paper, Dr. Frederick Verburg was an attending physician who worked under me.
10. Although I was included as a co-author on the Kratochwil 2016 paper, I do not believe that I qualify as an inventor on the U.S. Patent No. 10,980,901 Patent. Everything I know about the ^{225}Ac -PSMA-617 molecule and its use originated from Dr. Kratochwil or Dr. Haberkorn.
11. Around 2014, I had a patient suffering from prostate cancer. His cancer had metastasized and was spread throughout his body. We attempted treatment with radioactive lutetium (^{177}Lu -PSMA-617) but were unsuccessful. The cancer continued to progress.
12. At that time, I had a good relationship with two of the eventual inventors on the '901 Patent, Drs. Clemens Kratochwil and Uwe Haberkorn. Dr. Kratochwil and I had worked in the same department many years earlier and we would often discuss our respective work. In fact, it was Dr. Kratochwil that had introduced the ^{177}Lu -PSMA-targeting treatments that I was using. They had told me that they had a promising treatment using a radiotherapeutic using the alpha emitter ^{225}Ac that they thought could help my patient. At that time, they were only using the therapy in what is commonly called "compassionate use" situations. Compassionate use applies where a patient, who has tried other treatments unsuccessfully and has no other recourse, is given an experimental treatment.

This is usually only used when the patient is likely to die without a treatment and all other treatments have failed. I would estimate that my patient only had about 3-6 months to live as this is the medium survival time for that degree of metastasis.

13. I knew that they had been using this experimental treatment on patients for some time in compassionate use situations, but did not know what the results were at that point or the details of the treatment other than it involved an alpha-emitter. Since my patient had tried other treatments, including ^{177}Lu -PSMA-617 under my care, was still suffering from extensive metastasis, and I estimated that he had only about 3-6 months to live, I sent him to them to attempt their treatment on him. Dr. Kratochwil did all the treatments on the patient using ^{225}Ac -PSMA-617 including deciding the dosing and course. Dr. Verburg and I had no involvement with the drug whatsoever.

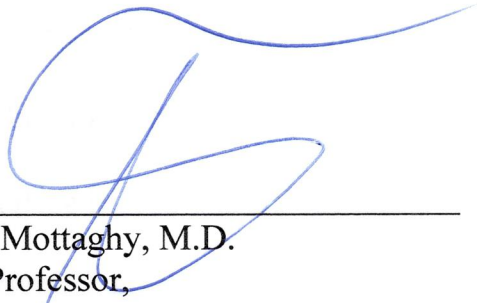
14. Before sending the patient to Dr. Kratochwil for treatment, Dr. Verburg and I had already done a standard work up to chart the initial progression of the patient's cancer and the effect of our treatment with ^{177}Lu . After the patient's treatment by Dr. Kratochwil, he returned to us for our follow up diagnostic. This diagnostic was not part of the treatment and is part of standard care.

15. Dr. Verburg and I were amazed and surprised at the patient's response to Dr. Kratochwil's treatment. The patient had gone from having extensive, life-

threatening metastasis to nearly complete remission. While we were hopeful that the treatment would help because Drs. Kratochwil and Haberkorn said it was promising, we did not expect a response as dramatic as this.

16. I do not know how long the patient lived after the treatment since he was lost to follow-up after about a year after the treatment.

Executed this 27 day of July, 2026.



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