



Universiteit
Leiden
The Netherlands

Ketamine's second life : Treatment of acute and chronic pain

Sigtermans, M.J.

Citation

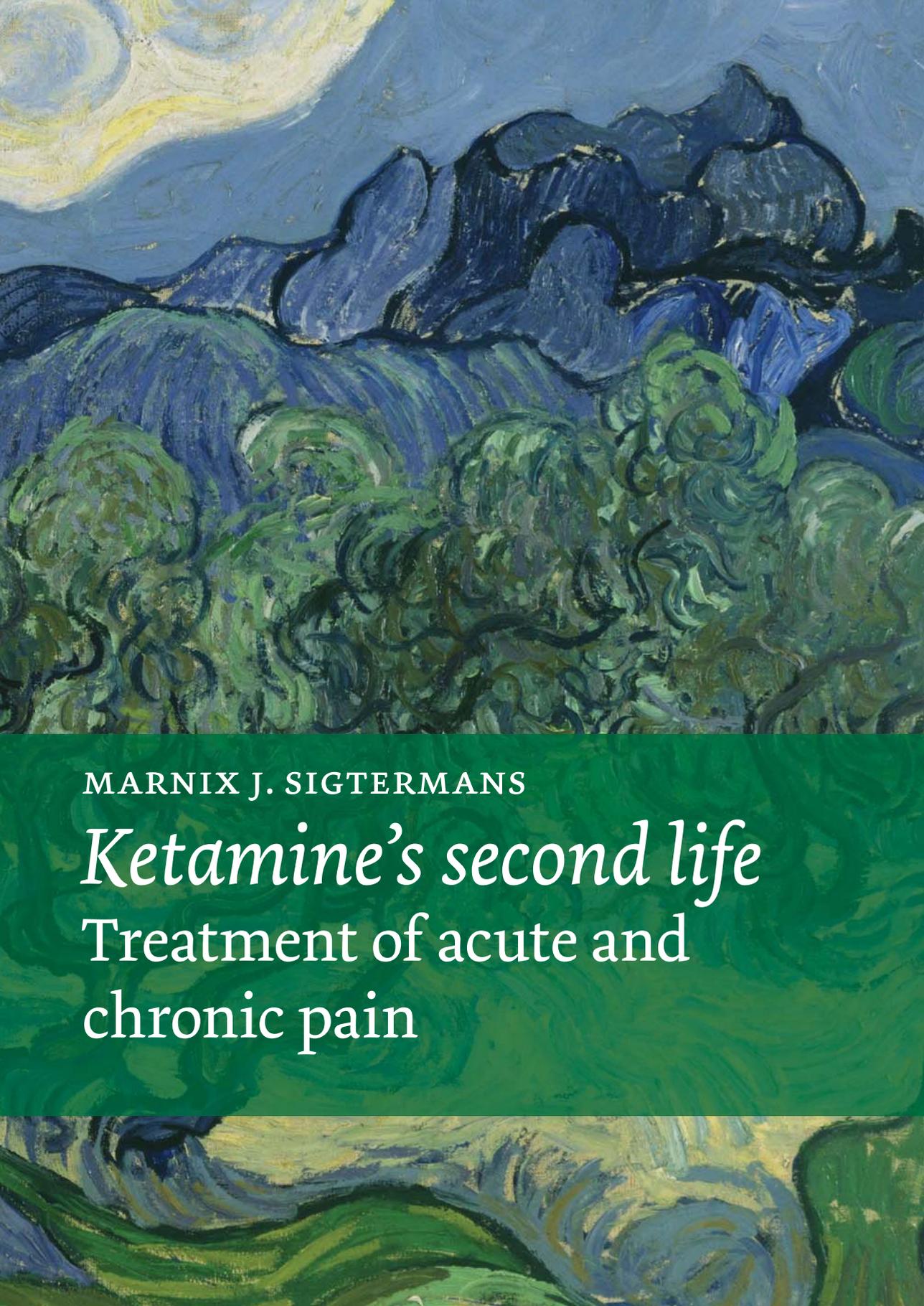
Sigtermans, M. J. (2010, October 5). *Ketamine's second life : Treatment of acute and chronic pain*. Retrieved from <https://hdl.handle.net/1887/16009>

Version: Corrected Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/16009>

Note: To cite this publication please use the final published version (if applicable).



MARNIX J. SIGTERMANS

Ketamine's second life
Treatment of acute and
chronic pain



Chronic pain is a widespread condition in the general population. For this reason, chronic pain management has received increased attention in recent years, both in clinical practice and in scientific research.

This thesis describes a series of experiments which studied the efficacy and safety of ketamine in subanesthetic doses. Both healthy volunteers and chronic pain patients were recruited for these studies.

The specific chronic pain condition studied in these experiments was *Complex Regional Pain Syndrome type 1*, which is characterized by chronic pain affecting one or more

extremities. It is very difficult to treat this condition with current pharmacotherapeutic interventions. However, one of the studies in this thesis showed that a continuous ketamine infusion, lasting for several days, can have a prolonged effect in reducing pain scores for up to several weeks (despite rapidly decreasing ketamine plasma concentrations after termination of the infusion).

In addition, experiments in both healthy volunteers and patients were performed to study the pharmacokinetics and pharmacodynamics of ketamine in subanesthetic doses.



9 789090 254838