

## Accepted Manuscript

Title: Dog breed affiliation with a forensically validated canine STR set

Authors: Burkhard Berger, Cordula Berger, Josephin Heinrich, Harald Niederstätter, Werner Hecht, Andreas Hellmann, Udo Rohleder, Uwe Schleenbecker, Nadja Morf, Ana Freire-Aradas, Dennis McNevin, Christopher Phillips, Walther Parson



PII: S1872-4973(18)30299-0  
DOI: <https://doi.org/10.1016/j.fsigen.2018.08.005>  
Reference: FSIGEN 1948

To appear in: *Forensic Science International: Genetics*

Received date: 29-5-2018  
Revised date: 23-7-2018  
Accepted date: 11-8-2018

Please cite this article as: Berger B, Berger C, Heinrich J, Niederstätter H, Hecht W, Hellmann A, Rohleder U, Schleenbecker U, Morf N, Freire-Aradas A, McNevin D, Phillips C, Parson W, Dog breed affiliation with a forensically validated canine STR set, *Forensic Science International: Genetics* (2018), <https://doi.org/10.1016/j.fsigen.2018.08.005>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

## Dog breed affiliation with a forensically validated canine STR set

Burkhard Berger<sup>a1</sup>, Cordula Berger<sup>a1</sup>, Josephin Heinrich<sup>a</sup>, Harald Niederstätter<sup>a</sup>, Werner Hecht<sup>b</sup>, Andreas Hellmann<sup>c</sup>, Udo Rohleder<sup>c</sup>, Uwe Schleenbecker<sup>c</sup>, Nadja Morf<sup>d</sup>, Ana Freire-Aradas<sup>f</sup>, Dennis McNevin<sup>e</sup>, Christopher Phillips<sup>f</sup>, Walther Parson<sup>a,g\*</sup>

<sup>a</sup> Institute of Legal Medicine, Medical University of Innsbruck, Innsbruck, Austria

<sup>b</sup> Institute of Veterinary Pathology, Justus-Liebig-University Giessen, Germany

<sup>c</sup> Bundeskriminalamt, Kriminaltechnisches Institut, Wiesbaden, Germany

<sup>d</sup> Institute of Legal Medicine, University of Zürich, Switzerland

<sup>e</sup> Centre for Forensic Science, School of Mathematical and Physical Sciences, Faculty of Science, University of Technology Sydney, Australia

<sup>f</sup> Forensic Genetics Unit, Institute of Forensic Sciences, University of Santiago de Compostela, Spain

<sup>g</sup> Forensic Science Program, The Pennsylvania State University, PA, USA

<sup>1</sup> These authors contributed equally to this study

\* Corresponding author at: Institute of Legal Medicine, Medical University of Innsbruck, Innsbruck, Austria. Tel.: +43 512 9003 70640; Fax: +43 512 9003 73640.  
*E-mail address:* walther.parson@gmail.at (Walther Parson)

## Highlights

- An STR panel designed for dog identification can be used for prediction of breed
- Only 13 STRs were required to differentiate most of the 23 tested dog breeds
- Correct breed assignments between 87% and 97.5% were achieved
- The association of canine STRs with the extreme selection in dogs is discussed

Download English Version:

<https://daneshyari.com/en/article/11000145>

Download Persian Version:

<https://daneshyari.com/article/11000145>

[Daneshyari.com](https://daneshyari.com)