

## Accepted Manuscript

### The Hierarchical Response of Human Corneal Collagen to Load

J.S. Bell, S. Hayes, C. Whitford, J. Sanchez-Weatherby, O. Shebanova, C. Vergari, C.P. Winlove, N. Terrill, T. Sorensen, A. Elsheikh, K.M. Meek

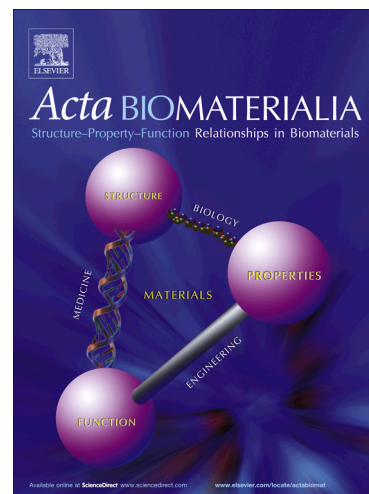
PII: S1742-7061(17)30699-2  
DOI: <https://doi.org/10.1016/j.actbio.2017.11.015>  
Reference: ACTBIO 5168

To appear in: *Acta Biomaterialia*

Received Date: 21 June 2017  
Revised Date: 5 November 2017  
Accepted Date: 7 November 2017

Please cite this article as: Bell, J.S., Hayes, S., Whitford, C., Sanchez-Weatherby, J., Shebanova, O., Vergari, C., Winlove, C.P., Terrill, N., Sorensen, T., Elsheikh, A., Meek, K.M., The Hierarchical Response of Human Corneal Collagen to Load, *Acta Biomaterialia* (2017), doi: <https://doi.org/10.1016/j.actbio.2017.11.015>

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.



## The Hierarchical Response of Human Corneal Collagen to Load

J. S. Bell<sup>1,2</sup>, S. Hayes<sup>1,2</sup>, C. Whitford<sup>3</sup>, J. Sanchez-Weatherby<sup>4</sup>, O. Shebanova<sup>4</sup>, C. Vergari<sup>5</sup>, C. P. Winlove<sup>5</sup>, N Terrill<sup>4</sup>, T. Sorensen<sup>4</sup>, A. Elsheikh<sup>3,6</sup>, K. M. Meek<sup>1,2</sup>.

<sup>1</sup> School of Optometry and Vision Sciences, Cardiff University, Maindy Road, Cathays, Cardiff CF24 4HQ, UK

<sup>2</sup> Cardiff Institute for Tissue Engineering and Repair (CITER), Cardiff University, Wales CF24 4HQ, UK

<sup>3</sup> School of Engineering, University of Liverpool, The Quadrangle, Brownlow Hill, Liverpool L69 3GH, UK

<sup>4</sup> Diamond Light Source Ltd, Diamond House, Harwell Science & Innovation Campus, Didcot, Oxfordshire OX11 0DE, UK

<sup>5</sup> Department of Physics and Astronomy, University of Exeter, Physics Building, Stocker Road, Exeter EX4 4QL, UK

<sup>6</sup> NIHR Biomedical Research Centre for Ophthalmology, Moorfields Eye Hospital NHS Foundation Trust and UCL Institute of Ophthalmology, UK

Corresponding author:

James Bell, School of Optometry and Vision Science, Cardiff University, Maindy Road, Cathays, Cardiff CF24 4HQ, UK

Tel. (+44) 2920 876356

E-mail: bellj10@cardiff.ac.uk

Keywords: Collagen, cornea, X-ray scattering, biomechanics, microstructure

Download English Version:

<https://daneshyari.com/en/article/6483149>

Download Persian Version:

<https://daneshyari.com/article/6483149>

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