

Richard Naylor  
Research Fellow  
Division of Cell Matrix Biology & Regenerative Medicine (L5)



## Qualifications

Doctor of Science, Anterior Posterior patterning of the *Xenopus laevis* embryonic kidney, The University of Warwick  
Oct 2005 → Mar 2009  
Award Date: 20 Mar 2009

Bachelor of Science, The University of Warwick  
Oct 2002 → Jun 2005  
Award Date: 6 Jun 2005

## Employment

### Fellow

Research Fellow  
Division of Cell Matrix Biology & Regenerative Medicine (L5)  
The University of Manchester  
1 Jul 2021 → present

## Research outputs

### **The glomerular circadian clock temporally regulates basement membrane dynamics and the podocyte glucocorticoid response**

Preston, R., Chrisp, R., Dudek, M., Paiva Teixeira Morais, M., Tian, P., Williams, E., Naylor, R., Davenport, B., Pathirana, D., Benson, E., Spiller, D., Bagnall, J., Zeef, L., Lawless, C., Baker, S. M., Meng, Q.-J. & Lennon, R., Jan 2025, In: *Kidney International*. 107, 1, p. 99-115

### **Integrin alpha1 beta1 promotes interstitial fibrosis in a mouse model of polycystic kidney disease**

Grenier, C., Lin, I.-H., Peters, D., Pozzi, A., Lennon, R. & Naylor, R., 21 Oct 2024

### **FLT4 causes developmental disorders of the cardiovascular and lymphovascular systems via pleiotropic molecular mechanisms**

Monaghan, R. M., Naylor, R. W., Flatman, D., Kasher, P. R., Williams, S. G. & Keavney, B. D., 1 Jul 2024, In: *Cardiovascular research*. 120, 10, p. 1164-1176 13 p., cvae104.

### **A novel nanoluciferase transgenic reporter measures proteinuria in zebrafish**

Naylor, R. W., Lemarie, E., Jackson-Crawford, A., Davenport, J. B., Mironov, A., Lowe, M. & Lennon, R., 1 Oct 2022, In: *Kidney International*. 102, 4, p. 815-827

### **A basement membrane discovery pipeline uncovers network complexity, new regulators, and human disease associations**

Genomics England Research Consortium, 20 May 2022, In: *Science Advances*. 8, 20, 19 p., eabn2265.

### **Basement membrane defects in CD151-associated glomerular disease**

Naylor, R. W., Watson, E., Williamson, S., Preston, R., Davenport, J. B., Thornton, N., Lowe, M., Williams, M. & Lennon, R., 12 Mar 2022, In: *Pediatric Nephrology*.

### **A novel nanoluciferase transgenic reporter to measure proteinuria in zebrafish**

Naylor, R. W., Lemarie, E., Jackson-Crawford, A., Davenport, J. B., Mironov, A., Lowe, M. & Lennon, R., 19 Jul 2021, In: *Kidney International*. 102, 4

**Complexities of the glomerular basement membrane**

Naylor, R. W., Morais, M. R. P. T. & Lennon, R., 24 Feb 2021, In: Nature Reviews Nephrology. 17, 2, p. 112-127 16 p.

**Transcriptional profiling of the zebrafish proximal tubule.**

Naylor, R., Aug 2019, In: American Journal of Physiology: Renal Physiology.

**Mind the gap: renal tubule responses to injury and the role of Cxcl12 and Myc**

Naylor, R., Mar 2019, In: Annals of Translational Medicine.

**A role for OCRL in glomerular function and disease**

Preston, R., Naylor, R., Stewart, G., Bierzynska, A., Saleem, M. A., Lowe, M. & Lennon, R., 2019, In: Pediatric Nephrology.

**A novel mechanism of gland formation in zebrafish involving transdifferentiation of renal epithelial cells and live cell extrusion**

Naylor, R. W., Chang, H.-H. G., Qubisi, S. & Davidson, A. J., 5 Nov 2018, In: eLife.

**A novel mechanism of gland formation in zebrafish involving transdifferentiation of renal epithelial cells and live cell extrusion**

Naylor, R. W. & Davidson, A. J., 22 Jun 2018, bioRxiv.

**Wnt8a expands the pool of embryonic kidney progenitors in zebrafish.**

Naylor, R., Han, H. & Hukriede, N., 15 May 2017, In: Developmental Biology.

**Pronephric tubule formation in zebrafish: morphogenesis and migration.**

Naylor, R., Feb 2017, In: Pediatric Nephrology.

**Zebrafish Pronephros Development**

Naylor, R., Qubisi, S. & Davidson, A. J., 2017, *Results and Problems in Cell Differentiation: Kidney Development and Disease*. Miller, R. K. (ed.). 1st ed. Vol. 60. p. 27-54 28 p.

**Derivation of Corneal Keratocyte-Like Cells from Human Induced Pluripotent Stem Cells.**

Naylor, R., McGhee, C., Holm, T. & Sherwin, T., 28 Oct 2016, In: P L o S One.

**Caudal migration and proliferation of renal progenitors regulates early nephron segment size in zebrafish**

Naylor, R., 19 Oct 2016, In: Nature Scientific Reports. 35647.

**BMP and retinoic acid regulate anterior-posterior patterning of the non-axial mesoderm across the dorsal-ventral axis.**

Naylor, R., Skvarca, L., Thisse, C., Thisse, B. & Hukriede, N., 1 Jul 2016, In: Nature Communications.

**Organogenesis of the Zebrafish Kidney**

Naylor, R., 2016, *Organogenetic Gene Networks*.

**Hnf1beta and nephron segmentation.**

Naylor, R. & Davidson, A. J., Apr 2014, In: Pediatric Nephrology. 29, 4, p. 659-664 6 p.

**HNF1 $\beta$  is essential for nephron segmentation during nephrogenesis**

Naylor, R., Przepiorski, A., Ren, Q., Yu, J. & Davidson, A. J., Jan 2013, In: Journal of the American Society of Nephrology. 24, 1, p. 77-87 11 p.

**Identification of adult nephron progenitors capable of kidney regeneration in zebrafish**

Diep, C. Q., Ma, D., Deo, R. C., Holm, T. M., Naylor, R., Arora, N., Wingert, R. A., Bollig, F., Djordjevic, G., Lichman, B., Zhu, H., Ikenaga, T., Ono, F., Englert, C., Cowan, C. A., Hukriede, N. A., Handin, R. I. & Davidson, A. J., 26 Jan 2011, In: Nature. 470, p. 95–100 6 p.

**Notch activates Wnt-4 signalling to control medio-lateral patterning of the pronephros.**

Naylor, R. & Jones, E. A., Nov 2009, In: Development. 136, 21, p. 3585-3595 11 p.

**Normal levels of p27 are necessary for somite segmentation and determining pronephric organ size.**

Naylor, R., Collins, R. J., Philpott, A. & Jones, E. A., Oct 2009, In: Organogenesis. 5, 4, p. 201-210 10 p.