In a new experimental model of urinary tract infection (UTI), male C3H mice are infected with uropathogenic Escherichia coli, and treatment with ceftriaxone (the first-line parenteral treatment for complicated UTI in human patients) beginning 5 days later achieves microbiologic cure. A significant proportion of mice nonetheless develop renal scarring, recapitulating a common complication of pyelonephritis in children which has implications for long-term renal function. Gomori trichrome staining of mouse kidney sections 4 weeks after antibiotic treatment demonstrates collagen deposition (blue) in the scar, replacement and retraction of cortical tissue, and thickening of the capsule over the scar. The scar also features an extensive chronic leukocytic infiltrate, suggesting an ongoing and active process long after resolution of infection. See article by Olson et al. on page 1371. Cover image by Patrick Olson is licensed under a Creative Commons Attribution 4.0 International license.

Cover: In a new experimental model of urinary tract infection (UTI), male C3H mice are infected with uropathogenic Escherichia coli, and treatment with ceftriaxone (the first-line parenteral treatment for complicated UTI in human patients) beginning 5 days later achieves microbiologic cure. A significant proportion of mice nonetheless develop renal scarring, recapitulating a common complication of pyelonephritis in children which has implications for long-term renal function. Gomori trichrome staining of mouse kidney sections 4 weeks after antibiotic treatment demonstrates collagen deposition (blue) in the scar, replacement and retraction of cortical tissue, and thickening of the capsule over the scar. The scar also features an extensive chronic leukocytic infiltrate, suggesting an ongoing and active process long after resolution of infection. See article by Olson et al. on page 1371. Cover image by Patrick Olson is licensed under a Creative Commons Attribution 4.0 International license.