

THE NATURE AND NURTURE OF PAIN

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Pain is associated with much interindividual variability, including in the propensity to develop chronically painful pathologies after injury or infection. Genetic linkage mapping efforts in mice and targeted genetic association studies in humans are beginning to identify those genes underlying much the variability noted in these traits. In our laboratory, we have recently uncovered a number of genes associated with thermal and inflammatory nociception. These efforts may lead to novel clinical treatments for pain and/or facilitate the patient-centered, individualized treatment of pain using current pharmaceuticals. In addition, we are now paying greater attention to the identification of environmental factors that affect pain behaviour in the mouse. We have very recently observed modulation of pain in the mouse by purely social factors. These data suggest that the biopsychosocial model can be fully implemented in the laboratory mouse, and that gene x environment interactions can be studied as well.