

tacting the secondary recognition site, and a large portion of the surface contacting the primary recognition site. Therefore, AKAP79 also appears to bind at the same site as FKBP12-FK506 and may inhibit CaN by a similar mechanism. The observation that CaN is inhibited by a 22-residue peptide that would appear to provide little direct steric hindrance to substrate binding at the active site provides additional support for the suggestion that factors other than steric hindrance contribute to CaN inhibition. □

Received 30 August; accepted 3 November 1995.

- Shenolikar, S. & Nairn, A. C. in *Advances in Second Messenger and Phosphoprotein Research* (eds Greengard, P. & Robison, G. A.) 1–121 (Raven, New York, 1991).
- Liu, J. et al. *Cell* **66**, 807–815 (1991).
- Klee, C. B., Crouch, T. H. & Krinks, M. H. *Proc. natn. Acad. Sci. U.S.A.* **76**, 6270–6273 (1979).
- Hashimoto, Y., Perrino, B. A. & Soderling, T. R. *J. Biol. Chem.* **265**, 1924–1927 (1990).
- Watanabe, Y., Perrino, B. A., Chang, B. H. & Soderling, T. R. *J. Biol. Chem.* **270**, 456–460 (1995).
- Klee, C. B., Draetta, G. F. & Hubbard, M. J. *Adv. Enzym. Relat. Areas molec. Biol.* **61**, 149–200 (1988).
- Stemmer, P. M. & Klee, C. B. *Biochemistry* **33**, 6859–6866 (1994).
- Babu, Y. S., Bugg, C. E. & Cook, W. J. *J. molec. Biol.* **203**, 191–204 (1988).
- Griffith, J. P. et al. *Cell* **82**, 507–522 (1995).
- Perrino, B. A., Ng, L. Y. & Soderling, T. R. *J. Biol. Chem.* **270**, 340–346 (1995).
- Guerini, D., Montell, C. & Klee, C. B. *J. Biol. Chem.* **267**, 22542–22549 (1992).
- Parsons, J. N. et al. *J. Biol. Chem.* **269**, 19610–19616 (1994).
- Lewis, C. et al. *FASEB J.* **9**, A1346 (1995).
- Perrino, B. A., Hashimoto, Y. & Soderling, T. R. *FASEB J.* **4**, A2237 (1990).
- Burroughs, S. E., Horrocks, W. D. Jr, Ren, H. & Klee, C. B. *Biochemistry* **33**, 10428–10436 (1994).
- Sträter, N., Klambunde, T., Tucker, P., Witzel, H. & Krebs, B. *Science* **268**, 1489–1492 (1995).
- Yu, L., Haddy, A. & Rusnak, F. J. *Am. chem. Soc.* **117**, 10147–10148 (1995).
- Qin, K.-F., Khangulov, S., Liu, C. & Huang, C. Y. *FASEB J.* **9**, A1347 (1995).
- Martin, B. L. & Graves, D. J. *Biochim. biophys. Acta* **1206**, 136–142 (1994).
- Goldberg, J. et al. *Nature* **376**, 745–753 (1995).
- Swanson, S. K. H. et al. *Proc. natn. Acad. Sci. U.S.A.* **89**, 3741–3745 (1992).
- Cardenas, M. E., Muir, R. S., Breuder, T. & Joseph, H. *EMBO J.* **14**, 2772–2783 (1995).
- Milan, D., Griffith, J., Su, M., Price, E. R. & McKeon, F. *Cell* **79**, 437–447 (1994).
- Etzkorn, F. A., Chang, Z., Stolz, L. A. & Walsh, C. T. *Biochemistry* **33**, 2380–2388 (1994).
- Coghlan, V. M. et al. *Science* **267**, 108–111 (1995).
- Brünger, A. T. *X-PLOR Version 3.1 Manual* (Yale Univ., New Haven, CT, 1993).
- Laskowski, R. A., MacArthur, M. W., Moss, D. S. & Thornton, J. M. *J. appl. crystallogr.* **26**, 283–291 (1993).
- Navaza, J. *Acta crystallogr.* **A50**, 157–163 (1994).
- Van Duyne, G. D., Standaert, R. F., Karplus, P. A., Schreiber, S. L. & Clardy, J. *Science* **252**, 839–842 (1991).

ACKNOWLEDGEMENTS. We dedicate this publication to the memory of Dr Russell Bacquet. We thank R. Kincaid for CaNA_α cDNA; C. Klee for CaNA_β and CaNB_β cDNAs; S. Ealick for data collection time at CHESS and R. Waiter for assistance with data collection; the fermentation team at Agouron Pharmaceuticals (J. Dutra, H. Tenenbaum, Z. Hostomsky and S. Rahmati) for large quantities of *E. coli* coexpressing human CaN; our colleagues X. Hou, R. Babine, P. Dragovich, K. Menge and W. Chong for helpful discussions, and S. Fordyce for assistance in preparation of this manuscript. We also acknowledge the support of our colleagues in the immunosuppression program at Agouron Pharmaceuticals and our collaborators at JT Pharmaceuticals.

ERRATA

A protein catalytic framework with an N-terminal nucleophile is capable of self-activation

James A. Brannigan, Guy Dodson, Helen J. Duggleby, Peter C. E. Moody, Janet L. Smith, Diana R. Tomchick & Alexey G. Murzin

Nature **378**, 416–419 (1995)

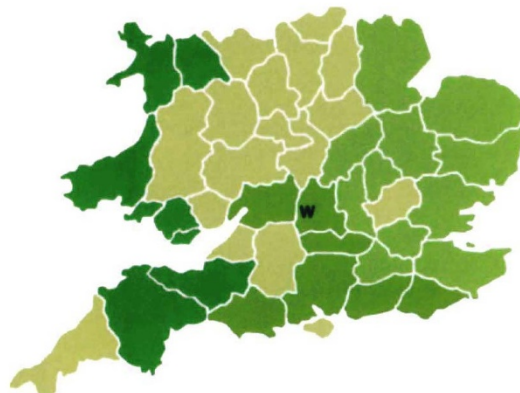
As a result of an error during the production process, Fig. 4 of this Letter was printed upside down. □

Predation risk and the cost of being fat

Andrew G. Gosler, Jeremy J. D. Greenwood & Christopher Perrins

Nature **377**, 621–623 (1995)

THE map in Fig. 2 should have been marked with a 'W', as indicated here, to represent Wytham. Counties with insufficient data are shown in beige, and not in white as stated in the figure legend. □



Control of p70 S6 kinase by kinase activity of FRAP *in vivo*

Eric J. Brown, Peter A. Beal, Curtis T. Kelth, Jie Chen, Tae Bum Shin & Stuart L. Schreiber

Nature **377**, 441–446 (1995)

THE middle panel of Fig. 4d of this Letter did not print up properly. The complete figure is shown here. □

