

Name: Tim HUNT

Address: Cancer Research UK Clare Hall Laboratories, South Mimms,
Herts EN6 3LD, England.

Telephone [44] 1707 625 981 FAX [44] 1707 625 803
email tim.hunt@cancer.org.uk

Born: 19th February, 1943, at Neston in the Wirral, UK.

Nationality: British

Marital status: Married to Professor Mary Collins
2 daughters: Celia Daisy, born 27 November 1994,
Agnes Beatrix born May 7th 1998.

Education: 1951-56: Dragon School, Oxford
1956-60: Magdalen College School, Oxford
1961-64: Clare College, Cambridge

B.A. 1964 University of Cambridge, Natural Sciences Tripos Part I, Class 1; Part II Biochemistry Class 2.1

Ph.D. 1968 "The control of haemoglobin synthesis" in the Department of Biochemistry, Cambridge, supervised by the late Dr A. Korner and Dr Alan Munro.

Positions held: Principal Scientist, Cancer Research UK, Clare Hall Laboratories, 1991-present.
University Lecturer, Department of Biochemistry, University of Cambridge 1981-1990.
Research Fellow in Department of Biochemistry, University of Cambridge 1971-1981
Royal Society Research Fellow 1976-1981.
MRC Senior Assistant in Research 1975-1976.
Beit Memorial Fellow 1972-1975.
Postdoctoral Fellow in Department of Medicine, Albert Einstein College of Medicine with Dr. Irving M. London 1968-70.
Research Fellow of Clare College, Cambridge 1967-74; Official Fellow 1975-2001; Honorary Fellow 2001.
Junior Proctor, University of Cambridge, 1982-1983
Instructor in Embryology (1977, 1979) and Physiology (1980-83)
summer courses, Marine Biological Laboratory, Woods Hole,
U.S.A.

Editorial boards: Journal of Cell Science
Molecular Biology of the Cell
Genes to Cells
EMBO Journal (“Senior Editor”)

Reviewing Panels: EMBO Fund Committee, 1990-1994
Council of John Innes Institute, Norwich, 1991-1993
BBSRC Cell and Molecular Biology Panel, 1995-1996
Council of the Royal Society 1996-1997
Scientific Advisory Board of the IMP, Vienna, 1995-2001
Scientific Advisory Board of Wellcome Unit, Dundee 1997-
Wellcome Trust Cell and Molecular Panel 2000 – 2002
Chair, Review of the French Genopole System, 2003.
Scientific Advisory Board of Wellcome Trust Centre for Cell
Biology, Edinburgh. 2002-2007.
Scientific Advisory Board of The Gurdon Institute, Cambridge
2002-2008
Scientific Advisory Board of National Institute of Genetics,
Mishima, Japan 2002-
Scientific Advisory Board of Weatherall Institute for Molecular
Medicine, Oxford
Chair of Life Sciences (2004, 2005) and Medical Sciences (2006,
2007) Panels of ESF EURYI Fellowship Awards.
Council member of EMBO, 2004- (Chairman, 2006-2009)
Council of Scientific Advisors of ICGEB, Trieste 2002-
SAB, School of Biological Sciences, University of Cambridge,
2003-
SAB of CNIO, Madrid 2004-
Board of Governors of Okinawa Institute of Science and
Technology (OIST) 2005-
SAB of IRB, Barcelona 2007-
SAB of Stazione Zoologica, Naples 2008-

Honours: Member of EMBO 1979
Fellow of the Royal Society 1991

Member of the American Academy of Arts and Sciences, 1997
Member of Academia Europaea 1998
Foreign Associate of US National Academy of Sciences 1999
Abraham White Scientific Achievement Award of the George Washington University Department of Biochemistry & Molecular Biology, Washington, D.C., U.S.A., 1993.
Nina C. Werblow lecture, Cornell University Medical College, New York, U.S.A. 1993.
J.W. Jenkinson Lecture, University of Oxford, 1997
Martin Breitman Memorial Lecture, University of Toronto, 1998.
5th Severo Ochoa Memorial Lecture, Autonomous University of Madrid, 1998.
Nobel Prize in Physiology or Medicine, 2001, with Lee Hartwell and Paul Nurse.
Officier of the French Légion d'Honneur, 2002.
The Croonian Lecture, Royal Society, 2003.
The Heatley Lecture, Oxford, 2003.
The Edwin G. Krebs Lecture, Seattle, 2004.
The 8th Annual Joseph C. Calandra Lecture, Chicago, 2004
The Annual Brody Memorial Lecture, Iowa, 2004.
Knighted, 2006.
Royal Medal of the Royal Society, 2007.
Sir Hans Krebs Lecture, FEBS Meeting, Athens, June 2008
Max Birnstiel Lecture, IMP Vienna, June 2009
Jens Skou Memorial Lecture, Aarhus University, January 2010
Capo d'Orlando Prize, Vico Equense, May 2010

Honorary Degrees:

University of Cambridge, 2002
University of Hertfordshire, 2002
University of Exeter, 2002
University of Dundee, 2002
University of Liverpool, 2003
University College London, 2003
University of Brno, 2003

Publications

- Errico A, Cosentino C., Rivera, T., Losada A., Schwob E., Hunt, T. and Costanzo V. (2009). Tipin/Tim1/And1 protein complex promotes Pol α chromatin binding and sister chromatid cohesion. *EMBO J.* **28**:3681-3692.
- Mochida S, Ikeo S, Gannon J, Hunt T. (2009). Regulated activity of PP2A-B55 delta is crucial for controlling entry into and exit from mitosis in *Xenopus* egg extracts. *EMBO J.* **28**:2777-2785
- Takaki T, Echalier A, Brown NR, Hunt T, Endicott JA, Noble ME. (2009). The structure of CDK4/cyclin D3 has implications for models of CDK activation. *Proc Natl Acad Sci U S A.* **106**:4171-4176.
- Hunt T. (2008). You never know: Cdk inhibitors as anti-cancer drugs. *Cell Cycle.* **7**:3789-3790.
- Hochegger H, Takeda S, Hunt T. (2008). Cyclin-dependent kinases and cell-cycle transitions: does one fit all? *Nat Rev Mol Cell Biol.* **9**:910-916
- Ruiz,E.J., Hunt, T. and Nebreda, A.R. (2008). Meiotic inactivation of *Xenopus* Myt1 by CDK/XRINGO, but not CDK/Cyclin, via site-specific phosphorylation. *Mol. Cell.* **32**:210-220.
- Mochida, S. and Hunt, T (2007). Calcineurin is required to release *Xenopus* egg extracts from meiotic M phase. *Nature* **449**:336-340
- Errico, A., Costanzo, V. and Hunt, T. (2007). Tipin is required for stalled replication forks to resume DNA replication after removal of aphidicolin in *Xenopus* egg extracts. *Proc. Natl. Acad. Sci. U.S.A.* **104**:14929-14934
- Hochegger H, Dejsuphong D, Sonoda E, Saberi A, Rajendra E, Kirk J, Hunt T, and Takeda S. (2007). *J Cell Biol.* **178**:257-268.
- Hunt T.,and Sassone-Corsi P. (2007). Riding tandem: circadian clocks and the cell cycle. *Cell* **129**:461-464.
- Petri ET, Errico A, Escobedo L, Hunt T, and Basavappa R. (2007). The Crystal Structure of Human Cyclin B. *Cell Cycle.* **6**: 1342-1349

- Casaletto, J.B., Nutt, L.K., Wu, Q., Moore, J.D., Etkin, L.D., Jackson, P.K., Hunt, T., and Kornbluth, S. (2005). Inhibition of the anaphase-promoting complex by the Xnf7 ubiquitin ligase. *J Cell Biol.* **169**: 61-71.
- Esashi F, Christ N, Gannon J, Liu Y, Hunt T, Jasin M, West SC. (2005). CDK-dependent phosphorylation of BRCA2 as a regulatory mechanism for recombinational repair. *Nature.* 434: 598-604.
- Dinarina, A., Perez, L.H., Davila, A., Schwab, M., Hunt, T. and Nebreda A.R. (2005) Characterization of a new family of cyclin-dependent kinase activators. *Biochem J.* **386**:349-55.
- Prigent, C. and Hunt, T. (2004) Oocyte maturation and cell cycle control: a farewell symposium for Pr Marcel Dorée. *Biol Cell.* **96**:181-185.
- Yamano H, Kominami KI, Harrison C, Kitamura K, Katayama S, Dhut S, Hunt T, Toda T. (2004). Requirement of the SCFPop1/Pop2 ubiquitin ligase for degradation of the fission yeast S-phase cyclin Cig2. *J Biol Chem.* **279**:18974-18980.
- Yamano, H., Gannon, J. Mahbubani, H. and Hunt, T. (2004). Cell-cycle regulated recognition of the destruction box of cyclin B by the APC/C in *Xenopus* egg extracts. *Molecular Cell,* **13**, 137-147.
- Moore, J. D., Kirk, J. A. and Hunt, T. (2003). Unmasking the S-phase-promoting potential of cyclin B1. *Science* **300**: 987-990.
- Hunt, T. (2002). Protein synthesis, proteolysis, and cell cycle transitions. *Biosci. Rep.* **22**:465-486. [Nobel lecture reprinted]
- Dorée, M., and Hunt, T. (2002). From Cdc2 to Cdk1: when did the cell cycle kinase join its cyclin partner? *J Cell Sci* **115**, 2461-2464.
- Graeser, R., Gannon, J., Poon, R. Y., Dubois, T., Aitken, A., and Hunt, T. (2002). Regulation of the CDK-related protein kinase PCTAIRE-1 and its possible role in neurite outgrowth in Neuro-2A cells. *J Cell Sci* **115**, 3479-3490.
- Moore, J. D., Kornbluth, S., and Hunt, T. (2002). Identification of the nuclear localization signal in *Xenopus* cyclin E and analysis of its role in replication and mitosis. *Mol Biol Cell* **13**, 4388-4400.

- Hunt, T. (2001). Protein synthesis, proteolysis, and cell cycle transitions. *Les Prix Nobel* 2001, pp267-297.
- Hochegger, H., Klotzbücher, A., Kirk, J., Howell, M., le Guellec, K., Fletcher, K., Duncan, T., Sohail, M. and Hunt, T. (2001). New B-type cyclin synthesis is required between meiosis I and II during *Xenopus* oocyte maturation. *Development*, **128**, 3795-3807.
- Ellenrieder, C., Bartosch, B., Lee, G.Y.-C., Murphy, M., Sweeney, C., Hergersberg, M., Carrington, M., Jaussi, R. and Hunt, T. (2001). The long form of CDK2 arises via alternative splicing and forms an active protein kinase with cyclins A and E. The long form of CDK2 arises via alternative splicing and forms an active protein kinase with cyclins A and E. *DNA Cell Biol.* **20**, 413-423.
- Sohail, M., Hochegger, H., Klotzbücher, A., Le Guellec, R., Hunt, T. and Southern, E.M. (2001). Antisense oligonucleotides selected by hybridisation to scanning arrays are effective reagents *in vivo*. *Nucl. Acid. Res.* **29**, 2041-2051.
- Geley, S., Kramer, E., Gieffers, C., Gannon, J., Peters, J.M. and Hunt, T. (2001). Anaphase-promoting Complex/Cyclosome-dependent Proteolysis of Human Cyclin A Starts at the Beginning of Mitosis and Is Not Subject to the Spindle Assembly Checkpoint. *J Cell Biol.* **153**, 137-48.
- Yamano, H., Kitamura, K., Kominami, K., Lehmann, A., Katayama, S., Hunt, T. and Toda, T. (2000). The spike of S phase cyclin Cig2 expression at the G1-S border in fission yeast requires both APC and SCF ubiquitin ligases. *Mol Cell*, **6**, 1377-87.
- Funakoshi, M., Geley, S., Hunt, T., Nishimoto, T. and Kobayashi, H. (1999). Identification of XDRP1; a *Xenopus* protein related to Dsk2p binds to the N-terminus of cyclin A and inhibits its degradation. *EMBO J.* **18**, 5009-5018.
- Tugal, T., Zou-Yang, X.H., Gavin, K., Pappin, D., Canas, B., Kobayashi, R., Hunt, T. and Stillman, B. (1998). The Orc4p and Orc5p subunits of the *Xenopus* and human origin recognition complex are related to Orc1p and Cdc6p. *J. Biol. Chem.* **273**, 32421-32429.
- Yamano, H., Tsurumi, C., Gannon, J. and Hunt, T. (1998). The role of the destruction box and its neighbouring lysine residues in cyclin B for anaphase ubiquitin-dependent proteolysis in fission yeast: defining the D-box receptor. *EMBO J.* **17**, 5670-5678.

- Brandeis, M., Rosewell, I., Carrington, M., Crompton, T., Jacobs, M.A., Kirk, J., Gannon, J. and Hunt, T. (1998). Cyclin B2-null mice develop normally and are fertile, whereas cyclin B1-null mice die *in utero*. Proc. Natl. Acad. Sci. USA **95**, 4344-4349.
- Gannon, J.V., Nebreda, A., Goodger, N.M., Morgan, P.R. and Hunt, T. (1998). A measure of the mitotic index: studies of the abundance and halflife of p34^{cdc2} in cultured cells and normal and neoplastic tissues. Genes Cells **3**, 17-28.
- Funabiki H, Yamano H, Nagao K, Tanaka H, Yasuda H, Hunt T, Yanagida M (1997). Fission yeast cut2 required for anaphase has two destruction boxes. EMBO J **16**, 5977-5987.
- Funakoshi M, Sikder H, Ebihara H, Irie K, Sugimoto K, Matsumoto K, Hunt T, Nishimoto T, Kobayashi H (1997). *Xenopus* cyclin A1 can associate with Cdc28 in budding yeast, causing cell-cycle arrest with an abnormal distribution of nuclear DNA. Genes Cells **2**, 329-343
- Brandeis, M. and Hunt, T. (1996). The proteolysis of mitotic cyclins in mammalian cells persists from the end of mitosis until the onset of S phase. EMBO J. **15**, 5280-5289.
- Yamano, H., Gannon, J. and Hunt, T. (1996). The role of proteolysis in cell cycle progression in *Schizosaccharomyces pombe*. EMBO J. **15**, 5268-5279.
- Strausfeld, U.P., Howell, M. Descombes, P. Chevalier, S. Rempel, R.E., Adamczewski, J.P., Maller, J.L., Hunt, T. and Blow, J.J. (1996). Both cyclin A and cyclin E have S-phase promoting (SPF) activity in *Xenopus* egg extracts. J. Cell Sci. **109**, 1555-1563.
- Klotzbücher, A. Stewart, E., Harrison, D. And Hunt, T. (1996). The ‘destruction box’ of cyclin A allows B-type cyclins to be ubiquitinated, but not efficiently destroyed. EMBO J. **15**, 3053-3064.
- Funabiki, H., Yamano, H., Kumada, K., Nagao, K., Hunt, T. And Yanagida, M. (1996). Cut2 proteolysis required for sister-chromatid separation in fission yeast. Nature **381**, 438-441.
- Goodger, N.M., Gannon, J. Hunt, T. And Morgan, P.R. (1996). The localization of p34^{cdc2} in the cells of normal, hyperplastic, and malignant epithelial and lymphoid tissues of the oral cavity. J. Pathol. **178**, 422-428.
- Baptist, M., Lamy, F., Gannon, J., Hunt, T., Dumont, J.E. and Roger, P.P. (1996). Expression and subcellular localization of CDK2 and cdc2 kinases and their common partner

cyclin A in thyroid epithelial cells: comparison of cyclic AMP-dependent and - independent cell cycles. *J. Cell. Physiol.* **166**, 256-273

Brown, N.R., Noble M.E.M., Endicott, J.A., Garman, E.F., Wakatsuki, S., Mitchell, E., Rasmussen, B., Hunt, T. and Johnson L.N. (1995). The crystal structure of cyclin A. *Structure* **3**, 1235-1247.

Nebreda, A.R., Gannon, J.V. and Hunt, T. (1995) Newly synthesised protein(s) must associate with p34^{cdc2} to activate MAP kinase and MPF during progesterone-induced maturation of Xenopus oocytes. *EMBO Journal* **14**, 5597-5607.

Howe, J.A., Howell, M., Hunt, T. and Newport, J.W. (1995). Identification of a developmental timer regulating the stability of embryonic cyclin A and a new somatic A-type cyclin at gastrulation. *Genes and Development* **9**, 1164-1176.

Fukusawa, K., Murakami, M.S., Blair, D.G., Kuriyama, R., Hunt, T., Fischinger, P. and Vande Woude G.F. (1994). Similarities between somatic cells overexpressing the mos oncogene and oocytes during meiotic interphase. *Cell growth and differentiation* **5**, 1093-1103.

Strausfeld, U.P., Howell, M., Rempel, R., Maller, J.L., Hunt, T. and Blow, J.J. (1994). p21^{cip1} blocks the initiation of DNA replication in Xenopus extracts by inhibition of cyclin-dependent kinases. *Curr. Biol.* **4**, 876-883.

Kobayashi, H., Stewart, E., Poon, R.Y.C. and Hunt, T. (1994) Cyclin A and cyclin B dissociate from p34^{cdc2} with half-times of 4 and 15 hours respectively, regardless of the phase of the cell cycle. *J. Biol. Chem.* **269**, 29153-29160.

Lew, J., Huang, Q.-Q., Qi, Z., Winkfeld, R.J., Aebersold, R., Hunt, T. and Wang, J.H. (1994). A brain-specific activator of cyclin-dependent kinase 5. *Nature* **371**, 423-426.

Rouse, J., Cohen, P., Alonso-Llamazares, A., Zamanillo, D., Hunt, T. and Nebreda, A.R. (1994). A novel protein kinase cascade triggered by chemical stress and heat shock which activates MAP kinase-activated kinase-2 and phosphorylation of small heat shock proteins. *Cell*, **78**, 1027-1037

Poon, R.Y.C., Yamashita, K., Howell, M., Erschler, M.A., Belyavsky, A. and Hunt, T. (1994) Cell cycle regulation of the p34^{cdc2}/p33^{cdk2}-activating kinase p40^{MO15}. *J. Cell Sci.* **107**, 2789-2799.

- Sheets, M.D., Fox, C.A., Hunt, T., Vande Woude, G. and Wickens, M. (1994). The 3' untranslated regions of c-mos and cyclin mRNAs stimulate translation by regulating cytoplasmic polyadenylation. *Gene. Dev.* **8**, 926-938.
- Poon, R.Y.C. and Hunt, T. (1994). Reversible immunoprecipitation using histidine- or glutathione S-transferase-tagged Staphylococcal protein A. *Anal. Biochem.* **218**, 26-33.
- Stewart, E., Kobayashi, H., Harrison, D. and Hunt, T. (1994). Destruction of *Xenopus* cyclins A and B2, but not B1, requires binding to p34^{cdc2}. *EMBO J.* **13**, 584-594.
- Poon, R. Y., Yamashita, K., Adamczewski, J. P., Hunt, T. & Shuttleworth, J. (1993). The cdc2-related protein p40^{MO15} is the catalytic subunit of a protein kinase that can activate p33^{cdk2} and p34^{cdc2}. *EMBO J* **12**, 3123-3132.
- Nebreda, A. R. & Hunt, T. (1993). The *c-mos* proto-oncogene protein kinase turns on and maintains the activity of MAP kinase, but not MPF, in cell-free extracts of *Xenopus* oocytes and eggs. *EMBO J* **12**, 1979-1986.
- Woodman, P. G., Adamczewski, J. P., Hunt, T. & Warren, G. (1993). In vitro fusion of endocytic vesicles is inhibited by cyclin A-cdc2 kinase. *Mol Biol Cell* **4**, 541-553.
- Tommasino, M., Adamczewski, J. P., Carlotti, F., Barth, C. F., Manetti, R., Contorni, M., Cavalieri, F., Hunt, T. & Crawford, L. (1993). HPV16 E7 protein associates with the protein kinase p33^{cdk2} and cyclin A. *Oncogene* **8**, 195-202.
- Bandara, L. R., Adamczewski, J. P., Zamanian, M., Poon, R. Y., Hunt, T. & Thangue, N. B. (1992). Cyclin A recruits p33^{cdk2} to the cellular transcription factor DRTF1. *J Cell Sci Suppl* **16**, 77-85.
- Kobayashi, H., Stewart, E., Poon, R., Adamczewski, J. P., Gannon, J. & Hunt, T. (1992). Identification of the domains in cyclin A required for binding to, and activation of, p34^{cdc2} and p32^{cdk2} protein kinase subunits. *Mol Biol Cell* **3**, 1279-1294.
- Craig, D., Howell, M.T., Gibbs, C.L., Hunt, T. and Jackson, R.J. (1992). Plasmid cDNA-directed protein synthesis in a couple eukaryotic in vitro transcription-translation system. *Nucl. Acid. Res.* **19**, 4987-4995.
- Minshull, J and Hunt, T. (1992). Antisense ablation of mRNA in frog and rabbit cell-free systems. In *Antisense RNA and DNA*, ed. J.A.H. Murray. New York, Wiley-Liss.

Hunt, T. (1992). Summary: Put out more flags. Cold Spring Harbor Symposium **56**, 757-769.

Kobayashi, H., Goldsteyn, R., Poon, R., Stewart, E., Gannon, J., Minshull, J., Smith, R. and Hunt, T. Cyclins and their partners during *Xenopus* oocyte maturation. (1992) Cold Spring Harbor Symposium **56**, 437-447.

Hunt, T., Luca, F.C. and Ruderman, J.V. (1992). The requirements for protein synthesis and degradation, and the control of destruction of cyclins A and B in the meiotic and mitotic cell cycles of the clam embryo. *J. Cell Biol.* **116**, 707-724.

Hunt, T. (1991). Cyclins and their partners: from a simple idea to complicated reality. *Seminars in Cell Biology* **2**, 213-222.

Watanabe, N., Hunt, T., Ikawa, Y., and Sagata, N. (1991). Independent inactivation of MPF and cytostatic factor (Mos) upon fertilization of *Xenopus* eggs. *Nature* **352**, 247-248

Bandara, L.R., Adamczewski, J.P., Hunt, T., and La Thangue, N.B. (1991). Cyclin A and the retinoblastoma gene product complex with a common transcription factor. *Nature* **352**, 249-251.

Minshull, J., Murray, A., Colman, A. and Hunt, T. (1991). *Xenopus* oocyte maturation does not require new cyclin synthesis. *J. Cell Biol.* **114**, 767-771.

Kobayashi, H., Minshull, J., Ford, C., Golsteyn, R., Poon, R. and Hunt, T. (1991). On the synthesis and destruction of A- and B-type cyclins during oogenesis and meiotic maturation in *Xenopus laevis*. *J. Cell Biol.* **114**, 755-765

Standart, N and Hunt, T. (1990). Control of translation of masked mRNA in clam oocytes. *Enzyme* **44**, 106-119.

Standart, N., Dale, M., Stewart, E. and Hunt, T. (1990). Maternal mRNA from clam oocytes can be specifically unmasked in vitro by antisense RNA complementary to the 3' untranslated region. *Genes Dev.* **4**, 2157-2168.

Minshull, J., Golsteyn R., Hill, C.S. and Hunt, T. (1990). The A- and B- type cyclin associated cdc2 kinases in *Xenopus* turn of and off at different times in the cell cycle. *EMBO J.* **9**, 2865- 2875.

Félix, M.-A., Labbé, J.-C., Dorée, M., Hunt, T. and Karsenti, E. (1990). Triggering of cyclin degradation in interphase extracts of amphibian eggs by cdc2 kinase *Nature* **346**, 379-382.

- Gautier, J. Minshull, J. Lohka, M. Glotzer, M. Hunt, T. and Maller, J.L. (1990). Cyclin is a component of MPF from *Xenopus*. *Cell*, **60**, 487-494.
- Minshull, J., Pines, J., Golsteyn, R., Standart, N., Mackie, S., Colman, A., Blow, J., Ruderman, J.V. Wu., M. and Hunt, T. (1989). The role of cyclin synthesis, modification and destruction in the control of cell division. *J. Cell. Sci. Suppl.* **12**, 77-97.
- Félix, M.A., Pines, J., Hunt, T. and Karsenti, E. (1989). A postribosomal supernatant from activated *Xenopus* eggs that displays post-translationally regulated oscillation of its cdc2⁺ mitotic kinase activity. *EMBO J.* **8**, 3059-3069.
- Meijer, L., Arion, D., Golsteyn, R., Pines, J., Brizuela, L., Hunt, T. and Beach, D. (1989). Cyclin is a component of the sea urchin egg M-phase specific histone H1 kinase. *EMBO J.* **8**, 2275- 2282.
- Minshull, J., Blow, J. and Hunt, T. (1989). Translation of cyclin mRNA is necessary for extracts of activated *Xenopus* eggs to enter mitosis. *Cell*: **56**, 947-956.
- Minshull, J., Pines, J., Standart, N., Stewart, L., Mackie, S., Colman, A., Blow, J., Wu, M., Ruderman, J. and Hunt, T. (1988). Protein synthesis, proteolysis and the control of cell division in early embryos: do the synthesis and destruction of cyclins comprise the cytoplasmic oscillator? in *Cell Cycle Control in Eukaryotes. Current Communication in Molecular Biology*, Cold Spring Harbor Laboratory Press, N.Y. pp 128-139.
- Pines, J. and Hunt, T. (1987). Molecular cloning and characterization of the mRNA for cyclin from sea urchin eggs. *EMBO J.*, **6**, 2987- 2995.
- Standart, N., Minshull, J., Pines, J. and Hunt, T. (1987) Cyclin synthesis, modification and destruction during meiotic maturation of the starfish oocyte. *Dev. Biol.* **124**, 248-258.
- Standart, N., Hunt, T. and Ruderman, J.V. (1986). Differential accumulation of ribonucleotide reductase subunits in clam oocytes: the large subunit is stored as a polypeptide, the small subunit as untranslated mRNA. *J. Cell Biol.* **103**, 2129- 2136.
- Minshull, J. and Hunt, T. (1986). The use of single-stranded DNA and RNase H to promote quantitative ‘hybrid arrest of translation’ of mRNA/DNA hybrids in reticulocyte lysate cell-free translations. *Nucleic Acids Res.* **14**, 6433-6451.

- Jackson, R.J. and Hunt, T. (1985). A novel approach to the isolation of rabbit reticulocyte haem-controlled eIF-2a protein kinase. *Biochim. Biophys. Acta* **826**, 224-228.
- Standart, N.M., Bray, S.J., George, E.L., Hunt, T. and Ruderman, J.V. (1985). The small subunit of ribonucleotide reductase is encoded by one of the most abundant translationally regulated maternal RNAs in clam and sea urchin eggs. *J. Cell Biol.* **100**, 1968-1976.
- Walker, A.I., Hunt, T., Jackson, R.J. and Anderson, C.W. (1985). Double-stranded DNA induces the phosphorylation of several proteins including the 90 000 mol. wt. heat-shock protein in animal cell extracts. *EMBO J.* **4**, 139-145.
- Ballinger, D.G., Bray, S.J. and Hunt, T. (1984). Studies of the kinetics and ionic requirements for the phosphorylation of ribosomal protein S6 after fertilization of *Arbacia punctulata* eggs. *Dev. Biol.* **101**, 192-200.
- Evans, T., Rosenthal, E.T., Youngblom, J., Distel, D. and Hunt, T. (1983). Cyclin: a protein specified by maternal mRNA in sea urchin eggs that is destroyed at each cleavage division. *Cell* **33**, 389-396.
- Jackson, R.J. and Hunt, T. (1983). Preparation and use of nuclease-treated rabbit reticulocyte lysates for the translation of eukaryotic messenger RNA. *Meth. Enzymol.* **96**, 50-74.
- Hunt, T., (1983). Phosphorylation and the control of protein synthesis. *Phil Trans Roy. Soc. London B*, **302**, 127-134.
- Ruderman, J.V., Tansey, T.R., Rosenthal, E.T., Hunt, T., and Cheney, C.M. (1983). Spatial and temporal aspects of gene expression during *Spisula* embryogenesis. In "Time, space and pattern in embryonic development" ed. Raff, R. and Jeffery, W.: New York, Alan R. Liss, pp. 49-63.
- Jackson, R.J., Herbert, P., Campbell, E.A. and Hunt, T. (1983). The roles of sugar phosphates and thiol-reducing systems in the control of reticulocyte protein synthesis. *Eur. J. Biochem.* **131**, 313-324.
- Hunt, T., Herbert, P., Campbell, E.A., Delidakis, C. and Jackson, R.J. (1983). The use of affinity chromatography on 2'-5'ADP-Sepharose reveals a requirement for NADPH, thioredoxin and thioredoxin reductase for the maintenance of high protein synthesis activity in rabbit reticulocyte lysates. *Eur. J. Biochem.* **131**, 303-311.

- Jackson, R.J., Cambell, E.A., Herbert, P. and Hunt, T. (1983). The preparation and properties of gel-filtered rabbit reticulocyte lysate protein synthesis systems. *Eur. J. Biochem.* **131**, 289-301.
- Jackson, R.J. and Hunt, T. (1982). The turnover of methionine in the Met- tRNA pool and the control of protein synthesis in reticulocyte lysates. *FEBS Letts.* **143**, 301-305.
- Ballinger, D. and Hunt, T. (1981). Fertilization of sea urchin eggs is accompanied by 40S ribosomal subunit phosphorylation. *Dev. Biol.* **87**, 277-285.
- Hunt, T. (1980). The initiation of protein synthesis. *Trends Biochem. Sci.* **5**, 178-181.
- Hunt, T. (1980). Phosphorylation and the control of protein synthesis in reticulocytes. In "Recently discovered systems of enzyme regulation by reversible phosphorylation", pp 175-202. Ed. P. Cohen. Amsterdam: Elsevier/North Holland Press.
- Rosenthal, E.T., Hunt, T. and Ruderman, J.V. (1980). Selective translation of mRNA controls the pattern of protein synthesis during early development of the surf clam, *Spisula solidissima*. *Cell* **20**, 487-494.
- Hunt, T., (1979). The control of protein synthesis in rabbit reticulocyte lysates. *Miami Winter Symposium* **16**, 321-346.
- Jackson, R.J. and Hunt, T. (1978). Use of hexose phosphates to support protein synthesis and generate [γ -32P]-ATP in reticulocyte lysates. *FEBS Letts.* **93**, 235-238.
- Farrell, P.J., Hunt, T. and Jackson, R.J. (1978). Analysis of phosphorylation of protein synthesis initiation factor eIF- 2 by two-dimensional gel electrophoresis. *Eur. J. Biochem.* **89**, 517-521.
- Pelham, H.R.B., Sykes, J.M.M. and Hunt, T. (1978). Characteristics of a coupled cell-free transcription and translation system directed by vaccinia cores. *Eur. J. Biochem.* **82**, 199-209.
- Farrell, P.J., Balkow, K., Hunt, T., Jackson, R.J. and Trachsel, H. (1977). Phosphorylation of initiation factor eIF-2 and the control of reticulocyte protein synthesis. *Cell* **11**, 187-200.
- Hunter, A.R., Jackson, R.J., and Hunt, T. (1977). The role of complexes between the 40S ribosomal subunit and Met-tRNAf in the initiation of protein synthesis in the wheat germ system. *Eur. J. Biochem.* **75**, 159-170.

- Hunter, A.R., Farrell, P.J., Jackson, R.J. and Hunt, T. (1977). The role of polyamines in cell-free protein synthesis in the wheat germ system. *Eur. J. Biochem.* **75**, 149-157.
- Hunt, T. (1976). The control of haemoglobin synthesis. *Brit. Med. Bull.* **32**, 257-261.
- Hunter, A.R., Hunt, T., Knowland, J.S. and Zimmern, D. (1976). Messenger RNA for the coat protein of tobacco mosaic virus. *Nature* **260**, 759-764.
- Balkow, K., Hunt, T. and Jackson, R.J. (1975). Control of protein synthesis in reticulocyte lysates: the effect of nucleoside triphosphates on formation of the translational repressor. *Biochem. Biophys. Res. Comm.* **67**, 366-375.
- Hunter, T., Hunt, T., Jackson, R.J. and Robertson, H.D. (1975). The characteristics of inhibition of protein synthesis by double-stranded RNA in reticulocyte lysates. *J. Biol. Chem.* **250**, 409-417.
- Legon, S., Brayley, A., Hunt, T. and Jackson, R.J. (1974). The effect of cAMP and related compounds on the control of protein synthesis in reticulocyte lysates. *Biochem. Biophys. Res. Comm.* **56**, 745-752.
- Hunt, T., (1974). The control of globin synthesis in rabbit reticulocytes. *Ann. N.Y. Acad. Sci.* **241**, 223-231.
- Hunt, T. and Jackson, R.J. (1974). The rabbit reticulocyte lysate as a system for studying mRNA. In "Modern Trends in Human Leukaemia", ed. R. Neth, R.C. Gallo, S. Spiegelman and F. Stohlman. Munich: J.F. Lehmanns Verlag. pp 300-307.
- Darnbrough, C.H., Legon, S., Hunt, T and Jackson, R.J. (1973). Initiation of protein synthesis: evidence for messenger RNA-independent binding of methionyl transfer RNA to the 40S ribosomal subunit. *J. Mol. Biol.* **76**, 379-403.
- Matthews, M.B., Hunt, T. and Brayley, A. (1973). Specificity of the control of protein synthesis by haemin. *Nature New Biol.* **243**, 230-233.
- Legon, S., Jackson, R.J. and Hunt, T. (1973). Control of protein synthesis in reticulocyte lysates by haemin. *Nature New Biol.* **241**, 150-152.
- Darnbrough, C., Hunt, T. and Jackson, R.J. (1972). A complex between Met-tRNA_f and its disappearance during incubation with double-stranded RNA. *Biochem. Biophys. Res. Comm.* **48**, 1556-1563.

- Hunt, T., Vanderhoff, G.A. and London, I.M. (1972). Control of globin synthesis: the role of heme. *J. Mol. Biol.* **66**, 471-481.
- Kosower, N.S., Vanderhoff, G.A., Benerofe, B., Hunt, T. and Kosower, E.M. (1971). Inhibition of protein synthesis by glutathione disulfide in the presence of glutathione. *Biochem. Biophys. Res. Comm.* **45**, 816-821.
- Zehavi-Willner, T., Kosower, E.M., Hunt, T. and Kosower, N.S. (1971). Glutathione V. The effects of the thiol-oxidizing agent diamide on initiation and translation in rabbit reticulocytes. *Biochim. Biophys. Acta* **228**, 245-251.
- Ehrenfeld, E. and Hunt, T. (1971). Double-stranded poliovirus RNA inhibits initiation of protein synthesis by reticulocyte lysates. *Proc. Nat. Acad. Sci. USA* **68**, 1075-1078.
- Hunt, T. and Ehrenfeld, E. (1971). Cytoplasm from poliovirus-infected HeLa cells inhibits cell-free haemoglobin synthesis. *Nature New Biol.* **230**, 91-94.
- Zehavi-Willner, T., Kosower, N.S., Hunt, T. and Kosower, E.M. (1970). Glutathione oxidation and protein synthesis in rabbit reticulocytes. *Biochem. Biophys. Res. Comm.* **40**, 37-42.
- Hunt, T., Hunter, A.R. and Munro, A.J. (1969). Control of haemoglobin synthesis: rate of translation of messenger RNA for the α and β chains. *J. Mol. Biol.* **43**, 123-133.
- Hunt, T., Hunter, A.R. and Munro, A.J. (1968). Control of haemoglobin synthesis: distribution of ribosomes on the messenger RNA for α and β chains. *J. Mol. Biol.* **36**, 31-45.
- Hunt, T., Hunter, A.R. and Munro, A.J. (1968). Control of haemoglobin synthesis: a difference in the size of polysomes making α and β chains. *Nature* **220**, 481-483.
- London, I.M., Tavill, A.S., Vanderhoff, G.A., Hunt, T. and Grayzel, A.I. (1967). Erythroid cell differentiation and the synthesis and assembly of haemoglobin. *Dev. Biol. Supplement* **1**, 227-253.

Books:

The Cell Cycle: An Introduction (1993) by Andrew Murray and Tim Hunt. W.H. Freeman, Inc., New York/Oxford University Press, New York.

Molecular Biology of the Cell: A Problems Approach (1st edition 1989, 2nd edition 1994, 3rd Edition 2002, 4th Edition 2008) by John Wilson and Tim Hunt. Garland Science, Inc. New York.

DNA makes RNA makes Protein (1983) Edited by Tim Hunt, Steve Prentis and John Tooze with an introduction by Tim Hunt. Elsevier Biomedical Press, Amsterdam. (Introduction republished, with a new forward by Tim Hunt, in “The Inside Story: DNA to RNA to Protein” Ed. Jan Witkowski, 2005; Cold Spring Harbor Press, New York).