

SNBTS Publications & Journals

Cell therapy

Balabanov S, Gontarewicz A, Ziegler P, Hartmann U, Kammer W, Copland M, Brassat U, Priemer M, Hauber I, Wilhelm T, Schwarz G, Kanz L, Bokemeyer C, Hauber J, Holyoake TL, Nordheim A, Brummendorf TH Hypusination of eukaryotic initiation factor 5A (EIF-5A): a novel therapeutic target in BCR-ABL-positive leukemias identified by a proteomics approach.

Blood. 2007; 109: 1701-11

Copland M, Hamilton A, Elrick LJ, Baird JW, Allan EK, Jordanides N, Barow M, Mountford JC, Holyoake TL Dasatinib (BMS-354825) targets an earlier progenitor population than imatinib in primary CML but does not eliminate the quiescent fraction.

Blood. 2006; 107(11): 4532-9

Fielding AK, Richards SM, Chopra R, Lazarus HM, Litzow MR, Buck G, Durrant IJ, Luger SM, Marks DI, Franklin IM, et al Outcome of 609 adults after relapse of acute lymphoblastic leukemia (ALL); an MRC UKALL12/ECOG 2993 study.

Blood. 2007; 109: 944-50

Jordanides NE, Jorgensen HG, Holyoake TL, Mountford JC

Functional ABCG2 is overexpressed on primary CML CD34+ cells and is inhibited by imatinib mesylate.

Blood. 2006; 108(4): 1370-3

Lazarus HM, Richards SM, Chopra R, Litzow MR, Burnett AK, Wiernik PH, Franklin IM, et al Central nervous system involvement in adult acute lymphoblastic leukemia at diagnosis: results from the international ALL trial MRC UKALL XII/ECOG E2993.

Blood. 2006;108: 465-72.

Allan EK, Holyoake TL, Jorgensen HG

Human neutrophil elastase is not a target for therapy in chronic myeloid leukaemia.

Leukemia. 2006; 20(11): 2054-5

Strathdee G, Sim A, Soutar R, Holyoake TL, Brown R

HOXA5 is targeted by cell type specific CpG island methylation in normal cells and during the development of acute myeloid leukaemia.

Carcinogenesis. 2007; 28(2): 299-309

Fraser AR, Cook G, Franklin IM, Templeton JG, Campbell M, Holyoake TL, Campbell JD Immature monocytes from G-CSF-mobilized peripheral blood stem cell collections carry surface-bound IL-10 and have the potential to modulate alloreactivity.

J Leukoc Biol. 2006; 80(4): 862-9

Roddie H, Klammer M, Thomas C, Thomson R, Atkinson A, Sproul A, Waterfall M, Samuel K, Yin J, Johnson P, Turner M.

Phase I/II study of vaccination with dendritic-like leukaemia cells for the immunotherapy of acute myeloid leukaemia.

Br J Haematol. 2006; 133(2): 152-7

Krassowska A, Gordon-Keylock S, Samuel K, Gilchrist D, Dzierzak E, Oostendorp R, Forrester LM, Ansell JD

Promotion of haematopoietic activity in embryonic stem cells by the aorta-gonad-mesonephros microenvironment.

Exp. Cell Res. 2006; 312(18): 3595-3603

Bashamboo A, Taylor AH, Samuel K, Panthier JJ, Whetton AD, Forrester LM The survival of differentiating embryonic stem cells is dependent on the SCF-KIT pathway.

J Cell Sci. 2006;119(Pt 15): 3039-46.

Jorgensen HG, Copland M, Allan EK, Jiang X, Eaves A, Eaves C, Holyoake TL

Intermittent exposure of primitive quiescent chronic myeloid leukemia cells to granulocyte-colony stimulating factor in vitro promotes their elimination by imatinib mesylate.

Clin Cancer Res. 2006; 12(2): 626-33

Muhlebach MS, MacDonald SL, Button B, Hubbard JJ, Turner ML, Boucher RC, Kilpatrick DC

Association between mannan-binding lectin and impaired lung function in cystic fibrosis may be age-dependent.

Clin. Exp. Immunol. 2006; 145(2): 302-307

Hamilton A, Elrick L, Myssina S, Copland M, Jorgensen H, Melo JV, Holyoake T

BCR-ABL activity and its response to drugs can be determined in CD34+ CML stem cells by CrkL phosphorylation status using flow cytometry.

Leukemia. 2006; 20(6): 1035-9

Rocchi MS, Anderson MJ, Eaton SL, Hamilton S, Finlayson J, Steele P, Barclay GR, Chianini F Three-colour flow cytometric detection of PrP in ovine leukocytes.

Vet Immunol Immunopathol. 2007; 116(3-4): 172-181

MacDonald SL, Kilpatrick DC

Human serum amyloid P component binds to peripheral blood monocytes.

Scand. J. Immunol. 2006; 64(1): 48-52

Bienek C, MacKay L, Scott G, Jones A, Lomas R, Kearney JN, Galea G

Development of a bacteriophage model system to investigate virus inactivation methods used in the treatment of bone allografts.

Cell Tissue Banking. 2007; 8(2): 115-24

De Sousa PA, Galea G, Turner M

The road to providing human embryo stem cells for therapeutic use: the UK experience.

Reproduction. 2006; 132(5): 681-689

Effective use of blood

Walsh TS, Lee RJ, Maciver CR, Garrioch M, MacKirdy F, Binning AR, McClelland DB The Audit of Transfusion in Intensive Care in Scotland (ATICS) study group. Anemia during and at discharge from intensive care: the impact of restrictive blood transfusion practice.

Intensive Care Medicine. 2006; 32(1): 100-109

Walsh TS, Saleh EED, Lee RJ, McClelland DB The prevalence and characteristics of anaemia at discharge home after intensive care.

Intensive Care Medicine. 2006; 32(8): 1206-1213

Stainsby D, Jones H, Asher D, Atterbury C, Boncinelli A, Brant L, Chapman CE, Davison K, Gerrard R, Gray A, Knowles S, Love EM, Milkins C, McClelland DBL, Norfolk DR, Soldan K, Taylor C, Revill J, Williamson LM, Cohen H on behalf of the SHOT Steering Group

Serious hazards of transfusion: a decade of hemovigilance in the UK.

Transfusion Medicine Reviews. 2006; 20: 272-283

Slight RD, Fung AKY, Alonzi C, Bappu NJ, McClelland DBL, Mankad PS

Rationalizing blood transfusion in cardiac surgery: preliminary findings with a red cell volume-based model.

Vox Sanguinis. 2007; 92: 154-156

Slight RD, Bappu NJ, Nzewi OC, Lee RJ, McClelland DBL, Mankad PS

Factors predicting loss and gain of red cell volume in cardiac surgery patients.

Transfusion Medicine. 2006; 16(3): 169-175

Slight RD, Demosthenous N, Nzewi OC, Soliman AR, McClelland DB, Mankad PS

The effect of gain in total body water on haemoglobin concentration and body weight following cardiac surgery.

Heart Lung Circ. 2006; 15: 256-260

Stainsby D, Jones H, Cohen H, Asher D, Atterbury C, Boncinelli A, Brant L, Chapman CE, Knowles S, Milkins C, Norfolk DR (Writing Group on behalf of the SHOT Steering Group - McClelland DBL et al)

Encouraging messages from transfusion science.

Summary of the SHOT report 2005. Biomedical Scientist. 2006; (December): 1040-1042

Immunohaematology

Dohmen SE, Verhagen OJ, de Groot SM, Stott LM, Aalberse RC, Urbaniak SJ, van der Schoot CE

The analysis and quantification of a clonal B cell response in a hyperimmunized anti-D donor.

Clin. Exp. Immunol. 2006; 144(2): 223-232

Bessos H, Fraser R, Seghatchian J

What's happening – Scotblood 2006 Advances in immunotolerances, information technology, microarrays and pathogen inactivation in transfusion medicine.

Transfus. Apher. Sci. 2006; 35(2): 173-177

Sadani DT, Urbaniak SJ, Bruce M, Tighe JE Repeat ABO-incompatible platelet transfusions leading to haemolytic transfusion reaction.

Transfusion Medicine. 2006; 16(5): 375-379

Urbaniak SJ

Alloimmunity to RhD in humans.

Transfusion Clinique et Biologique. 2006; 13: 19-22

Products and components

Payner T, Leaver HA, Knapp B, Whittle IR, Trifan OC, Miller S, Rizzo MT

Microsomal prostaglandin E synthase-1 regulates human glioma cell growth via prostaglandin E(2)-dependent activation of type II protein kinase A.

Mol. Cancer Ther. 2006; 5(7): 1817-1826

Church NI, Dallal HJ, Masson J, Mowat NA, Johnston DA, Radin E, Turner M, Fullarton G, Prescott RJ, Palmer KR Validity of the Rockall scoring system after endoscopic therapy for bleeding peptic ulcer: a prospective cohort study.

Gastrointest. Endosc. 2006; 63(4): 606-612

Rush S, Khan G, Bamisaiye A, Bidwell P, Leaver HA, Rizzo MT

c-jun amino-terminal kinase and mitogen activated protein kinase 1/2 mediate hepatocyte growth factor-induced migration of brain endothelial cells.

Experimental Cell Research. 2007; 313(1): 121-132.

Welch J, Bienek C, Gomperts E, Simmonds P

Resistance of porcine circovirus and chicken anemia virus to virus inactivation procedures used for blood products.

Transfusion. 2006; 46(11): 1951-1958

Hornsey VS, McColl K, Drummond O, McMillan L, Morrison A, Morrison L, MacGregor IR, Prowse CV

Extended storage of platelets in SSP+ platelet additive solution.

Vox Sang. 2006; 91(1): 41-46

Leaver HA, Schou AC, Rizzo MT, Prowse CV Calcium-sensitive mitochondrial membrane potential in human platelets and intrinsic signals of cell death.

Platelets. 2006; 17(6): 368-377

Prowse C

Prion removal with filters.

ISBT Science Series. 2006; 1: 230-234 No 5PS-34-05

Transfusion transmitted infection

Thom K, Petrik J

Progression towards AIDS leads to increased Torque Teno virus and Torque Teno minivirus titres in tissues of HIV infected individuals.

J Med Virol. 2007; 79(1): 1-7

Davidson F, Lycett C, Jarvis LM, Kerr D, Lumley S, Petrik J, Dow BC

Detection of HTLV-I and –II in Scottish blood donor samples and archive donations.

Vox Sang. 2006; 91(3): 231-236

Galea G, Dow BC

Comparison of prevalence rates of microbiological markers between bone/tissue donations and new blood donors in Scotland.

Vox Sanguinis. 2006; 91: 28-33

Petrik J

Diagnostic applications of microarrays.

Transfusion Medicine. 2006; 16(4): 233-247

Variant Creutzfeldt-Jakob disease

Lourenco PC, Schmerr MJ, MacGregor I, Will RG, Ironside JW, Head MW

Application of an immunocapillary electrophoresis assay to the detection of abnormal prion protein in brain, spleen and blood specimens from patients with variant Creutzfeldt-Jakob disease.

J. Gen. Virol. 2006; 87(10): 3119-3124

Starke R, Mackie I, Drummond O, MacGregor I, Harrison P, Machin S

Prion protein in patients with renal failure.

Transfusion Medicine. 2006; 16(3): 165-168

Turner M

Transfusion safety with regards to prions: ethical, legal and societal considerations.

Transfusion Clinique et Biologique. 2006;

13(5): 317-319

Prowse C

Controlling the blood-borne spread of human prion disease.

ISBT Science Series. 2006; 1: 21-24 No 2PL-01-02

SNBTS Publications & Journals

Other

Wu O, Robertson L, Twaddle S, Lowe GD, Clark P, Greaves M, Walker ID, Langhorne P, Brenkel I, Regan L, Greer I

Screening for thrombophilia in high-risk situations: systematic review and cost-effectiveness analysis. The Thrombosis: Risk and Economic Assessment of Thrombophilia Screening (TREATS) study.

Health Technol. Assess. 2006; 10: 1-110

Soutar RL, Mercer J, Wraith JE

Impact of 144 weeks of Laronidase therapy on body functions, endurance and general well-being in a Hurler-Scheie patient.

J Inherit Metab Dis. 2006; 29: 590

SNBTS Publications in books

Barbara JA], Clarke V, Davidson K, Gesinde M, Gray S, Green R, Manson L, New H, Roberts I, Taylor C, Thomas D, Walllis JP, Yates S
Handbook of Transfusion Medicine (4th Edition).

McClelland DBL (Ed). Norwich: The Stationery Office, 2007; 91pp

Foster PR

Plasma products.

In: Creutzfeldt-Jakob Disease: Managing the Risk of Transmission by Blood, Plasma and Tissues. Turner ML (Ed). Bethesda, MD: AABB Press, 2006; ch7: 187-213

Galea G, Turner ML

Cell, Tissue and Organ Transplantation.

In: Creutzfeldt-Jakob Disease: Managing the Risk of Transmission by Blood, Plasma and Tissues. Turner ML (Ed). Bethesda, MD: AABB Press, 2006; Ch8: 215-244

Gray S, Maginnis M and other members of Clinical Standards for Blood Transfusion Project Group

NHS Quality Improvement Scotland, Clinical Standards.

Blood Transfusion. 2006 (September): 1-42

McClelland B

Why do we believe in red cell transfusion?

In: Advances in Transfusion Safety. Volume IV. Proceedings of an international conference, Sydney, October 2005. Dax EM, Farrugia A, Vyas GN (Eds). Basel: S. Karger. Developments in Biologicals. 2007; 127: 3-8

Clark P, Greer IA

Practical Obstetric Hematology. 2006

Publ: Taylor & Francis. ISBN 1842142623

Stanworth SJ, Brunskill SJ, Hyde CJ, Murphy MF, McClelland DBL

Appraisal of the evidence for the clinical use of FFP and plasma fractions.

In: Clinical Use of Plasma and Plasma Fractions. Blumberg N, Francis C, Heal J (Eds). Amsterdam: Elsevier. Best Practice & Research Clinical Haematology. 2006; 19, Ch5: 67-82

Turner ML

Risk Management in the face of uncertainty.

In: Creutzfeldt-Jakob Disease: Managing the Risk of Transmission by Blood, Plasma and Tissues. Turner ML (Ed). Bethesda, MD: AABB Press, 2006; Ch10:285-3012

SNBTS Correspondence

Bessos H, Stewart A, Turner M, Urbaniak S
Reduced expression of CD47 on stored red blood cells.

Transfusion. 2006; 46: 1265-1266

Bessos H, Stewart A, Turner M, Urbaniak S
Polyagglutinable NOR red blood cells found in an American family and a Polish family have the same unique glycosphingolipids. In reply.

Transfusion. 2006; 46(7): 1265-1266

Hughes M, Doig A, Soutar R

Solitary plasmacytoma and multiple myeloma: adhesion molecule and chemokine receptor expression patterns.

Br J Haematol. 2007; 137(5): 486-7

Laird J

Erythropoietin: can we afford to use it? Can we afford not to?

Transfusion Medicine. 2006; 16(3): 204-205

MacLeod AJ, Li Q, Bienek C, Foster PR

UV-C treatment of protein solutions.

Biologicals. 2007; Jan 22

Manson L, McKenzie A

Allogeneic blood for epidural blood patch - not without risk.

International Journal of Obstetric Anesthesia. 2006; 15(3): 260.

Prowse C, MacGregor I, Drummond O

Letters to the Editor. The platelet storage lesion.

Transfusion and Apheresis Science. 2007; 36: 119-120

Prowse C

Letters to the Editor. Dr Prowse response letter.

Transfusion and Apheresis Science. 2007; 36: 122

Turner ML

Prion reduction filters.

Lancet. 2006; 368(9554): 2190-2191

Turner ML

Epidural blood patch with allogeneic blood for post-dural puncture headache.

International Journal of Obstetric Anaesthesia. 2006; 15 (3): 261

SNBTS Active Patents

<i>SNBTS Patent holder/inventor</i>	<i>Patent title</i>	<i>Patent number(s)</i>
Bessos H, Murphy WG	Competitive Binding Assay – Immunoassay for platelet antigens in whole blood	US 6,479,246 B1 EP – 0815448 – 2002
Bessos H, Murphy WG	Assay for Platelet Antibodies	EP – 0667961 – 2002 Japan 3479073 – 2003
Foster PR, Welch AG	Treating protein-containing liquids	EP – 1 144 015 B1 – 2004 Australia 774996 – 2004
MacGregor IR, Hardy JC and Drummond O	Thrombin Preparation	EP – 813 598 B1 – 2004 US 5,907,032 – 1999 Japan 3819935 – 2006
Simmonds P, Yap Peng-Lee, Chan Shiu –Won	Hepatitis C Virus Testing, Types 1,2, and 3	Canada 2,123,875 - 2005 EP – 0610436 – 2003 Japan 3688290 – 2005 US 5,763,159 – 1998 S Africa 92/9015 – 1992
Simmonds P, Yap Peng-Lee, Pike IH	Hepatitis C Virus, Types 4, 5 and 6	Australia 695259 – 1994 EP – 0698101 – 2004 Japan 3751315 – 2005 US 6,881,821 – 2005
McIntosh RV, Hardy JC	Heat treated blood plasma protein	Australia 692018 – 1995 EP – 0804254 – 2003 US 5,831,027 – 1998
McIntosh RV, Welch AG	Intravenous Immune Globulin	EP – 0967995 – 2004 Taiwan 172000 – 2003 US 6,485,932 – 2002
Gunn A, Cameron ID, Pepper DS, MacDonald SL, Li Qianqyi	Treatment of Biological Fluids (joint with IATROS)	Taiwan 135584 – 2002 US 6,586,172 – 2003
Urbaniak SJ	Allo-reactive T-Cell epitopes (joint with University of Aberdeen)	EP – 1135414 – Hong Kong HK 1040719

<i>Grant Body/Awarders</i>	<i>Grant Holders</i>	<i>Grant Title</i>	<i>Overall sum (£) + years & end date</i>
European Union			
European Commission Framework 6			
Proposal No 503023	Lowe K, Prowse CV et al	Euroblood substitutes	1,500,000 euros overall
		SNBTS component	55,000 (years 2004-2007)
European Union – Network of Excellence			
	Urbaniak SJ, Armstrong-Fisher SS, Moss M	Special non-invasive Advances in Foetal and Neonatal Evaluation network (SAFE) on non-invasive foetal RhD genotyping and evaluation (SAFE Fellow & PhD studentship)	113,195 Share of 12m Euros (over 5 years 2004 to 2009 with 19 core laboratories) 2006-2009
European Commission – Public Health Executive Agency			
	Franklin IM, Hart M, Arthur E, McClelland DBL, Pirie E	EU Optimal Blood Use Project	€90,285 Euros €00,000 (56.16% EC funded) (3 years 2007-2010)
Department of Health			
Dept of Health	Houston F, Prowse C, Turner M, MacGregor I, Hornsey V, Hunter N, Foster J, Groschup M	The effect of leucodepletion on transmission of BSE by transfusion of sheep blood components	3,424,382 (6 years to January 2011)
Scottish Funding Council			
	Wilmut I, Turner M, Illius A, Savill J	Strategic Development Grant for Centre of Regenerative Medicine	2,030,000 (4 years to July 2010)
Medical Research Council			
	Holyoake TL et al	Clinical Research Fellowship & consumables grant	154,000 (3 years to September 2006)
Chief Scientist Office – Scottish Executive Health Department (CSO SEHD)			
	Holyoake TL et al	Research Assistant & consumables grant	174,000 (3 years to August 2006)
Chief Scientist Office PNF Programme	Holyoake TL and Parker A	Factors affecting recruitment to haemato-oncology clinical trials in North Glasgow	45,000 (2 years to January 2007)
	Newsome P, Harrison D, Turner ML, Forrester L, Plevris J, Samuel K, Bickmore W	In vivo study of hepatocytic differentiation of human haematopoietic stem cells and their reparative role in liver injury	183,926 (over 3 years)
	Porteous DJ, Turner M, Kerr S, Newby D, Wild S	Collection of a control cohort from the Scottish population as a national DNA resource for human genetics studies	181,806 (2 years to November 2006)
	Head M, MacGregor I, Williamson A, Moroncini G, Turner M, Ironside J	Development of a conformation dependent immunoassay for the detection of abnormal prion protein in blood	188,172 (4 years to January 2009)

<i>Grant Body/Awarders</i>	<i>Grant Holders</i>	<i>Grant Title</i>	<i>Overall sum (£) + years & end date</i>
	Moss M, Urbaniak SJ and Fraser RH	Synthetic peptides as potential blood grouping diagnostic reagents	152,078 (3 years to May 2006)
	Gallagher R	Role of Wnt genes in enhancing and maintaining leukaemic phenotypes and their expression during the differentiation of human CD34+ stem cells into different lineages	15,000 (12 months from July 2005)
	Mountford J, Allan E & University of Glasgow staff	Measurement and modulation of tyrosine kinase inhibitor drug levels in Chronic Myeloid Leukaemia	42,473 (12 months to February 2008)
Charities			
British Heart Foundation			
	Mountford J and Will M	Generation of cardiomyocytes from mesenchymal stem cells derived from adult human sternal bone marrow. (Clinical Research Fellow funding)	149,478 (3 years to January 2008)
BHF Project Grant No PG/06/051	Barclay GR, Mills N, Newby D, Hadoke P and Turner ML	Preclinical in vivo evaluation of potential sources of human endothelial progenitor cells for autograft cellular therapy of ischaemia	239,930 (3 years from July 2006)
	Mills NL, Newby DE, Barclay GR, de Belder MA, Robinson SD	Endothelial Progenitor Cells in Acute Vascular Injury and Repair	226,303 (2 years from March 2007)
Glasgow Royal Infirmary Endowments			
Glasgow Royal Infirmary Endowments	Holyoake TL and Allan E	Targeting quiescent CML stem cell by combining G-CSF and imatinib mesylate	9,700 (6 years to January 2011)
Leukaemia Research Trust Scotland			
Leukaemia Research Trust Scotland (LRTS)	Holyoake TL, Copland M	In vitro investigations of novel drug combinations in CML	12,500 (18 months to September 2006)
Leukaemia Research Fund			
	Holyoake TL	Pilot study of continuous imatinib mesylate vs. pulsed IM with/without G-CSF in CML patients who have achieved a CCR	35,540 (2 years to December 2006)
	Holyoake TL et al	FACS in studies of normal and malignant human and murine haemopoiesis	142,233 (3 years to December 2007)
	Mountford J and Holyoake TL	Do transporter proteins contribute to clinical resistance to Imatinib in CML? A combined study in Liverpool and Glasgow correlating transporter expression and function with Imatinib uptake and efflux	279,784 total 150,401 (Glasgow) (3 years to August 2007)

<i>Grant Body/Awarders</i>	<i>Grant Holders</i>	<i>Grant Title</i>	<i>Overall sum (£) + years & end date</i>
NHS Grampian University Hospitals Division Endowments			
GUHT Endowments	Urbaniak SJ	Research Technician funding	36,000 (years 2005 to 2008)
Tenovus-Scotland			
	Downing I, MacDonald SL	Preparation of murine monoclonal antibodies to a novel receptor for mannan-binding lectin on human dendritic cells	7,500 (2 years from April 2005)
Others (including commercial)			
Baxter R&D Europe			
Project 451-PA-NIV (TESSI)	Prowse CV et al	Therapeutic efficacy and safety of stored Intercept platelets	92,831 (Nov 2005 to Sept 2006)
DiaMed AG (Commercial funding)			
DiaMed AG	Fraser RH et al	Development of novel monoclonal blood grouping reagents (Research Assistant funding)	200,000 SwFr (88,000) Rolling grant (from 2004-2007)
Iranian Government			
	Urbaniak SJ, Barker RN, Moss M	HPA-1a GP IIIa peptide binding and processing (PhD studentship)	93,900 (5 years to 2007)
	Urbaniak SJ, Armstrong-Fisher SS	Identification of fetal DNA genetic markers in maternal plasma (PhD Studentship)	91,400 (4 years to 2007)
NESTECH Partnership			
	Urbaniak SJ, Cairns L, Barker RN, Rattray E	Peptide immunotherapy to suppress antibodies to red blood cells	203,875 (3 years to 2008)
NHS National Blood Service			
NBS Cambridge	Armstrong-Fisher SS, Urbaniak SJ	Placental transfer of recombinant antibodies	5,000 (1 year 2006-07)
Novartis (commercial funding)			
	Holyoake T, Allan E & University of Glasgow staff	In vitro studies to determine the sensitivity of quiescent chronic myeloid leukaemia stem cells to AMN107	55,160 (18 months to July 2007)
	Holyoake TL et al	Research Fellow & Research Technician grant	264,723 (3 years to August 2006)
Polish State Committee for Scientific Research			
	Kilpatrick DC (co applicant)	Lectin pathway of complement in defence against infections in newborns	21,000 (150,000 zl) (3 years from Jan 2005)
	Atkinson A, MacDonald SL, Kilpatrick DC	Investigation of the role of insufficiency of L-Ficolin and other components of the lectin pathway of complement activation in recurrent infections in children with allergies	26,000 (185,000 zl) 3 years from 2006

<i>Expenditure</i>	<i>£000s 2004/05</i>	<i>£000s 2005/06</i>	<i>£000s 2006/07</i>
Salaries and Wages	32,750	34,153	33,951
Operational Supplies	17,301	15,124	10,741
Equipment Purchase and Maintenance	1,938	2,109	2,517
Building running costs	2,405	2,887	1,541
Transport & Travel	2,040	1,917	1,698
Communications and Public Relations	2,147	1,675	1,881
Other Expenditure	3,238	5,351	13,040
Capital Charges	3,926	3,905	3,845
Total Expenditure	65,745	67,119	69,215
Funding sources			
Allocations	55,675	54,976	61,624
Other Income	9,938	8,261	7,125
Total Income	65,613	63,237	68,749
Net Surplus/(Deficit)	(132)	(3,882)	(466)

During 2006/7 human plasma products continued to be purchased from commercial sources whilst quality systems were upgraded at the PFC. During this period the decision was taken to cease manufacturing and to undertake a controlled closure of PFC to be completed by the end of 2007/8. This has resulted in some dual running costs, which have impacted the financial position of SNBTS during this year.