



## EDUCATION AND TRAINING

### UNDERGRADUATE:

| <u>Dates Attended</u> | <u>Name/Location of Institution</u>   | <u>Degree Received (Year)</u>                                   |
|-----------------------|---|---|
| 1957-1963             | Guy's Hospital Medical School<br>University of London<br>London, United Kingdom | MB, BS (1963)<br>(Bachelor of Medicine,<br>Bachelor of Surgery) |
|                       | Royal College of Physicians of London<br>London, United Kingdom                 | Licentiate (1963)   |
|                       | Royal College of Surgeons of England<br>London, United Kingdom                  | Member (1963)   |

### GRADUATE:

| <u>Dates Attended</u> | <u>Name/Location of Institution</u>  | <u>Degree Received (Year)</u>   |
|-----------------------|--|---|
| 1964-1971             | Royal College of Surgeons of England<br>London, United Kingdom   | Fellow (FRCS) (1972)  |
|                       | University of Cambridge<br>Cambridge, United Kingdom   | Master of Arts (1972)   |
| 1967-1973             | Institute of Cardiology<br>National Heart Hospital<br>University of London,<br>London, United Kingdom<br>(by dissertation: <i>Studies on resuscitation and<br/>short-term preservation of the canine heart</i> ) | Doctor of Philosophy<br>(1974)  |
| 1974-1978             | Royal College of Surgeons of England<br>London, United Kingdom   | Certificate of Completion<br>of Higher Training in<br>Thoracic Surgery (1978) |
|                       | University of London<br>London, United Kingdom<br>(by dissertation: <i>Clinical orthotopic and<br/>heterotopic heart transplantation: aspects<br/>of the University of Cape Town experience</i> )                | Doctor of Medicine (1986)   |

## EDUCATION AND TRAINING (Cont)

### GRADUATE (Cont)

| <u>Dates Attended</u> | <u>Name/Location of Institution</u>  | <u>Degree Received (Year)</u>          |
|-----------------------|--|--|
|                       | University of London<br>London, United Kingdom<br>(by dissertation: <i>Modulation of the immune response to cardiac allografts and xenografts in the baboon, with special reference to donor-recipient ABO-incompatibility</i> ) | Master of Surgery (1996)               |
|                       | University of London<br>London, United Kingdom<br>( <i>Glycobiological, immunological and non-immunological aspects of xenotransplantation. A collection of 219 publications and patents</i> )                                   | Doctor of Science<br>(Medicine) (2002) |

### POSTGRADUATE:

| <u>Dates Attended</u> | <u>Name/Location of Institution</u>                 | <u>Program Director/Discipline</u>   |
|-----------------------|---|--|
| 1963-1965             | Guy's Hospital<br>London, United Kingdom            | Internships<br>(Internal Medicine: 6 months<br>General Surgery: 6 months<br>Cardiothoracic Surgery: 6 months)  |
| 1966-1967             | Addenbrooke's Hospital<br>Cambridge, United Kingdom | Mr. Alan Murley<br>Senior House Officer (Junior Resident)<br>(Accident, Orthopedic and Neurosurgical services) |
| 1970-1971             | Addenbrooke's Hospital<br>Cambridge, United Kingdom | Sir Roy Calne<br>Registrar (Resident)<br>(General, Orthopedic and Urological Surgery)                          |
| 1973-1974             | Papworth Hospital<br>Cambridge, United Kingdom      | Sir Terence English<br>Registrar (Resident) (Cardio-thoracic Surgery)  |

## **EDUCATION AND TRAINING (Cont)**

### **POSTGRADUATE (Cont):**

| <b><u>Dates Attended</u></b> | <b><u>Name/Location of Institution</u></b>  | <b><u>Program Director/Discipline</u></b>  |
|------------------------------|---|--|
| 1974-1977                    | Middlesex Hospital/<br>Hammersmith Hospital/<br>Harefield Hospital/<br><br>Hospital for Sick Children<br>London, United Kingdom | Professor Hugh Bentall<br>Senior Registrar (Senior /Chief<br>Resident) (Cardiothoracic<br>Surgery)<br><br>Jada Stark, FRCS<br>Senior Registrar (Cardiothoracic<br>Surgery) |
| 1978-1979                    | Papworth Hospital<br>Cambridge, United Kingdom  | Sir Terence English<br>Senior Registrar (Senior/Chief<br>Resident) (Cardiothoracic<br>Surgery)   |

### **Clinical & Research Fellowships**

| <b><u>Dates Attended</u></b> | <b><u>Name/Location of Institution</u></b>  | <b><u>Program Director/Discipline</u></b>   |
|------------------------------|---|---|
| 1965-1966                    | Peter Bent Brigham Hospital<br>Boston, Massachusetts  | Professor Francis Moore<br>Surgical Research Fellow                                   |
| 1967-1969                    | Institute of Cardiology<br>National Heart Hospital<br>University of London<br>London, United Kingdom                            | Mr. Donald Ross<br>Surgical Research Fellow   |
| 1972-1973                    | Cardiothoracic Institute<br>University of London<br>London, United Kingdom  | Mr. Donald Ross<br>British Heart Foundation Junior<br>Surgical Research Fellow        |
| 1980                         | Department of Cardiac Surgery<br>Groote Schuur Hospital<br>University of Cape Town<br>Medical School<br>Cape Town, South Africa | Professor Christiaan Barnard<br>Clinical & Research Fellow<br>Cardiac Transplantation |

## APPOINTMENTS AND POSITIONS

### ACADEMIC:

| <u>Years Inclusive</u> | <u>Name/Location of Institution/Organization</u>  | <u>Rank/Title or Position</u>              |
|------------------------|---|--|
| 1965-1966              | Harvard Medical School<br>Boston, Massachusetts   | Lecturer on Anatomy                        |
| 1966-1970              | Magdalene College<br>Cambridge, United Kingdom  | Supervisor in Anatomy                      |
| 1970-1980              | Magdalene College<br>Cambridge, United Kingdom  | Lecturer in Anatomy                        |
| 1972-1980              | Magdalene College<br>Cambridge, United Kingdom  | Official Fellow                            |
| 1973-1980              | Magdalene College<br>Cambridge, United Kingdom  | Director of Studies in<br>Medical Sciences |
| 1975                   | Royal Postgraduate Medical School<br>University of London<br>London, United Kingdom                       | Lecturer on Surgery                        |
| 1980-1987              | Cardiac Surgical Research Laboratory<br>University of Cape Town Medical School<br>Cape Town, South Africa | Director                                   |
| 1981-1985              | Department of Cardiothoracic Surgery<br>University of Cape Town Medical School<br>Cape Town, South Africa | Senior Lecturer                            |
| 1985-1987              | Department of Cardiothoracic Surgery<br>University of Cape Town Medical School<br>Cape Town, South Africa | Associate Professor                        |
| 1987-1995              | Oklahoma Transplantation Institute<br>Baptist Medical Center<br>Oklahoma City, Oklahoma                   | Director of Research<br>and Education      |
| 1992-1995              | Oklahoma Transplantation Institute<br>Baptist Medical Center<br>Oklahoma City, Oklahoma                   | Scientist-in-Residence                     |

## APPOINTMENTS AND POSITIONS (Cont)

### ACADEMIC (Cont):

| <u>Years Inclusive</u> | <u>Name/Location of Institution/Organization</u>   | <u>Rank/Title or Position</u>                |
|------------------------|--|--|
| 1996-1997              | Harvard Medical School<br>Boston, Massachusetts  | Lecturer on Surgery                          |
| 1998-2004              | Harvard Medical School<br>Boston, Massachusetts  | Associate Professor,<br>Surgery (Immunology) |
| 2000-2004              | Leverett House<br>Harvard College<br>Cambridge, Massachusetts  | Non-resident<br>Premedical Tutor             |
| 2004-2005              | Thomas E. Starzl Transplantation Institute<br>University of Pittsburgh<br>School of Medicine<br>Pittsburgh, Pennsylvania | Visiting Professor of<br>Surgery             |
| 2006-2016              | Thomas E. Starzl Transplantation Institute<br>University of Pittsburgh<br>School of Medicine<br>Pittsburgh, Pennsylvania | Professor of Surgery                         |
| 2016-present           | Xenotransplantation Program<br>Department of Surgery<br>University of Alabama at Birmingham (UAB)<br>Birmingham, Alabama | Co-Director and<br>Professor of Surgery      |

### NON-ACADEMIC:

| <u>Years Inclusive</u> | <u>Name/Location of Institution/Organization</u>  | <u>Rank/Title or Position</u>                  |
|------------------------|---|--|
| 1981-1985              | Groote Schuur Hospital and the Red Cross<br>War Memorial Children's Hospital<br>Cape Town, South Africa | Specialist in Cardio-<br>thoracic Surgery      |
| 1985-1987              | Groote Schuur Hospital and the Red Cross<br>War Memorial Children's Hospital<br>Cape Town, South Africa | Senior Specialist in<br>Cardiothoracic Surgery |
| 1987-1995              | Oklahoma Transplantation Institute<br>Baptist Medical Center<br>Oklahoma City, Oklahoma                 | Cardiothoracic<br>Transplant Surgeon           |

## APPOINTMENTS AND POSITIONS (Cont)

### NON-ACADEMIC (Cont):

|                               |  |  |
|-------------------------------|--|--|
| 1987-1995                     | Transplantation Research Laboratory<br>Oklahoma Transplantation Institute<br>Baptist Medical Center<br>Oklahoma City, Oklahoma | Director                               |
| <b><u>Years Inclusive</u></b> | <b><u>Name/Location of Institution/Organization</u></b>  | <b><u>Rank/Title or Position</u></b>   |
| 1988-1996                     | Oklahoma Medical Research Foundation<br>Oklahoma City, Oklahoma  | Associate Member,<br>Scientific Staff  |
| 1991-1992                     | Oklahoma Organ Sharing Network<br>Oklahoma City, Oklahoma  | Medical Director                       |
| 1996-2004                     | Transplantation Biology Research Center<br>Massachusetts General Hospital<br>Boston, Massachusetts                             | Immunologist (Surgery)                 |
| 1996                          | Novartis Pharmaceuticals Corporation<br>East Hanover, New Jersey   | Consultant                             |
| 1996-2000                     | Bio Transplant, Inc.<br>Charlestown, Massachusetts   | Consultant                             |
| 2001-2004                     | Immerge Biotherapeutics, Inc.<br>Charlestown, Massachusetts  | Consultant                             |
| 2004-2011                     | Revivicor, Inc.<br>Blacksburg, Virginia  | Chairman, Scientific<br>Advisory Board |
| 2013-2016                     | International Conference on<br>Clinical Islet Xenotransplantation (ICCIX)  | Scientific Advisory<br>Committee       |

## CERTIFICATION AND LICENSURE

### SPECIALTY CERTIFICATION:

| <b><u>Certifying Board</u></b>                                   | <b><u>Year</u></b> |
|--|--------------------|
| Fellowship, Royal College of Surgeons of England, United Kingdom | 1972               |
| Certificate of Completion of Higher Training in Thoracic Surgery | 1978               |
| Royal College of Surgeons of England, United Kingdom             |                    |

## **MEDICAL OR OTHER PROFESSIONAL LICENSURE:**

| <b><u>Licensing Board/State</u></b>                        | <b><u>Year</u></b> |
|--|--------------------|
| General Medical Council (United Kingdom)                   | 1964-Present       |
| South African Medical & Dental Council                     | 1980-2003          |
| Registration as Specialist Thoracic Surgeon (South Africa) | 1981-2003          |
| Oaklahoma State Board of Medical Examiners (USA)           | 1985-Present       |

## **MEMBERSHIPS IN PROFESSIONAL AND SCIENTIFIC SOCIETIES**

| <b><u>Organization</u></b>  | <b><u>Year</u></b> |
|---|--------------------|
| Royal Society of Medicine (Fellow), United Kingdom  | 1969-1982          |
| Royal College of Surgeons of England (Fellow)   | 1971-Present       |
| British Transplantation Society (Founding Member)<br>United Kingdom   | 1972-2011          |
| Society of Cardiothoracic Surgeons of Great Britain & Ireland   | 1974-Present       |
| Junior Cardiac Club, United Kingdom   | 1974-1980          |
| Harlech Club (Cardiothoracic Surgical Traveling Club)<br>United Kingdom   | 1974-1991          |
| Thoracic Society, United Kingdom  | 1978-1982          |
| British Association of Clinical Anatomists (Fellow)   | 1978-1991          |
| Southern African Cardiac Society  | 1980-1992          |
| South African Association of Laboratory Animal Science  | 1980-1987          |
| Southern African Transplantation Society<br>Board of Directors, 1986-1987   | 1981-1987          |
| International Society for Heart & Lung Transplantation<br>Member, Program Committee: 1991-1994<br>Member, Board of Directors: 1994-1997<br>Honorary Secretary/Treasurer: 1994-1997<br>Co-Chair, Xenotransplantation Advisory Committee: 1999-2000 | 1981-Present       |
| Transplantation Society<br>XIX International Congress Scientific Advisory Committee: 2002   | 1982-Present       |
| Society of Thoracic Surgeons of South Africa  | 1982-1987          |
| Medical Association of South Africa   | 1982-1987          |
| American College of Cardiology (Fellow)   | 1984-Present       |
| European Society for Organ Transplantation (Associate Member)   | 1987-1988          |



**MEMBERSHIPS IN PROFESSIONAL AND SCIENTIFIC SOCIETIES (Cont)**

| <b><u>Organization</u></b>   | <b><u>Year</u></b> |
|--|--------------------|
| Oklahoma Transplantation Society<br>Founding Member, 1988<br>Honorary Secretary, 1988-1989<br>Board of Directors, 1988-1991<br>Vice President, 1989-1990<br>President, 1990-1991               | 1988-1995          |
| American Society of Transplant Surgeons<br>Program & Publications Committee, 1991-1994<br>Thoracic Organ Transplantation Committee, 1994-1997<br>Awards Committee, 2003-2006                   | 1990-Present       |
| New York Academy of Sciences   | 1990-1991          |
| American College of Surgeons (Fellow)  | 1994-Present       |
| Boston Surgical Society  | 1998-2004          |
| International Xenotransplantation Association (Founding Member)<br>Honorary Founding Secretary/Treasurer: 1998-1999<br>President: 1999-2001<br>Historian: 2001-Present<br>Honorary Member 2009 | 1998-Present       |
| The Cambridge Society  | 1999-Present       |
| American Society of Transplantation  | 2004-Present       |
| American Osler Society<br>Board of Governors 2014-Present  | 2006-Present       |
| C.F. Reynolds Medical History Society<br>Vice President 2007-2008<br>President 2008-2010<br>President 2015-16  | 2006-2016          |
| The Athenaeum  | 2010-Present       |
| American Association of Immunologists  | 2011-2013          |
| The Osler Club of London   | 2011-Present       |
| University of London Boat Club Trust (patron)  | 2014-Present       |
| The Transplantation Society<br>- IXA representative on Madrid congress organizing committee  | 2018               |

## HONORS

| <u>Title of Award</u>  | <u>Year</u> |
|--|-------------|
| British Heart Foundation, Junior Research Fellowship   | 1972        |
| CIBA Foundation Anglo-French Medical Exchange Bursary  | 1976        |
| James Leighton Hopkins Travelling Scholarship of Guy's Hospital Medical School   | 1977        |
| AID Travelling Fellowship  | 1977        |
| Peter Allen Essay Prize of the Society of Thoracic and Cardiovascular Surgeons of Great Britain and Ireland ( <i>Factors contributing to the mortality associated with open heart surgery in infants.</i> )  | 1978        |
| Hunterian Professor, Royal College of Surgeons of England<br>( <i>Orthotopic and heterotopic transplantation of the heart – the Cape Town experience.</i> )  | 1983        |
| President's Award of the International Society for Heart Transplantation<br>(Novitzky, D., et al. <i>Electrocardiographic, haemodynamic and endocrine changes occurring during experimental brain death in the Chacma baboon.</i> )  | 1984        |
| Arris and Gale Lecturer, Royal College of Surgeons of England ( <i>The pathophysiological effects of brain death on potential donor organs, with particular reference to the heart.</i> )  | 1988        |
| President's Award of the International Society for Heart Transplantation<br>(Reichenspurner, H., et al. <i>Optimalization of immunosuppression makes xenogeneic heart transplantation in primates possible.</i> )  | 1988        |
| Membership of the Frontiers in Bioscience Society of Scientists  | 1996        |
| Jacksonian Prize and Medal, Royal College of Surgeons of England (for contributions to xenotransplantation research)   | 1997        |
| Gelin Memorial Lecturer, Sahlgrenska University Hospital, University of Goteborg, Sweden ( <i>Current status of xenotransplantation.</i> )   | 1997        |
| Award for Best Paper (one of five) at the 5 <sup>th</sup> Congress of the International Xenotransplantation Association. (Bühler, L., et al. <i>A nonmyeloablative regimen with CD40L blockade leads to humoral/cellular hyporesponsiveness to pig hematopoietic cells in baboons.</i> )                           | 1999        |
| Award for Best Paper (one of four) at the 6 <sup>th</sup> Congress of the International Xenotransplantation Association (Gollackner, B., et al. <i>Porcine endothelial cell tissue factor-induction by baboon xenoreactive antibodies in vitro: evidence for pathogenic role of non-Gal elicited antibodies.</i> ) | 2001        |
| Will Solimene Award of Excellence in Medical Communication by the New England Chapter of the American Medical Writers Association (with R.P.Lanza, for the book <i>Xeno - the promise of transplanting animal organs into humans</i> ).  | 2002        |
| Arnott Lecturer, Royal College of Surgeons of England ( <i>The surgical anatomy of experimental and clinical thoracic organ transplantation</i> ).   | 2002        |
| 2007 American Society of Transplant Surgeons (ASTS)-Roche Presidential Travel Award  | 2007        |

## HONORS (continued)

| <u>Title of Award</u>  | <u>Year</u> |
|--|-------------|
| Guest Professor, Second Affiliated Hospital, University of South China,<br>Hengyang City, Hunan, China                 | 2012-2015   |
| Honorary Membership of the International Xenotransplantation Association<br>(a section of The Transplantation Society) | 2009        |
| The Transplantation Society-Roche Award for Excellence in Translational Science  | 2010        |
| The American Society of Transplantation Basic Science Established Investigator<br>Award                                | 2014        |
| Fellowship of King's College London (FKC)  | 2016        |
| The Transplantation Society Award for Outstanding Achievement in Transplantation<br>(BasicScience)                     | 2016        |
| Geoffrey Flavell Medal (for history of medicine), The Worshipful Society of Apothecaries<br>of London                  | 2017        |
| John P. McGovern Compleat Physician Award, Harris County Medical Society, Houston,<br>Texas, USA                       | 2017        |
| Master's Guild, Magdalene College, Cambridge   | 2018        |

## PUBLICATIONS

### REFEREED ARTICLES:

#### 1967

1. **Cooper, D.K.C.**, Hill, L.T. Jr, Edwards, E.A. Detection of early arteriosclerosis by external pulse recording. J Am Med Assoc 1967;199:449-454.
2. **Cooper, D.K.C.**, Skillman, J.J., Ciampa, G.R., Edwards, E.A. External pulse recording in experimental hemorrhage and drug infusion in man. Surg Gynecol Obstetr 1967;125:1246-1252.

#### 1969

3. **Cooper, D.K.C.** Agricultural accidents: a study of 132 patients seen at Addenbrooke's Hospital, Cambridge, in 12 months. Br Med J 1969;4:193-198. PMID: PMC1629865.
4. **Cooper, D.K.C.** Electrocardiographic studies in the rat in physiological and pathological states. Cardiovasc Res 1969;3:419-425.
5. Longmore, D.B., **Cooper, D.K.C.**, Hall, R.W., Sekabunga, J., Welch, W. Transplantation of the heart and both lungs: (II) Experimental cardiopulmonary transplantation. Thorax 1969;24:391-398. PMID: PMC472001.
6. Sekabunga, J.G., **Cooper, D.K.C.**, Longmore, D.B. Measurement of pulmonary surfactant by Du Nuoy tensiometer in various physiopathological conditions. J Surg Res 1969;9:505-511.

#### 1973

7. **Cooper, D.K.C.**, Smellie, W.A.B. Associated carcinomata of colon and anus. (Presented to the Section of Proctology, Royal Society of Medicine, 1973.) Proc Roy Soc Med 1973;66:686-687. PMID: PMC1645047.
8. Dear, M.G., **Cooper, D.K.C.**, Murtra, M. Electrocardiographic prediction of unmodified rejection in heterotopic canine cardiac allografts. Cardiovasc Res 1973;7:687-695.

#### 1974

9. **Cooper, D.K.C.** Resuscitation of the cadaver donor heart in the dog: (1) Haemodynamic, electrocardiographic, blood chemical and histopathological changes during and after death by asphyxia. Guy's Hospital Reports 1974;123:333-345.

## **PUBLICATIONS (Cont)**

### **REFEREED ARTICLES (Cont):**

10. **Cooper, D.K.C.** Resuscitation of the cadaver donor heart in the dog: (2) A comparison of two simple techniques. Guy's Hospital Reports 1974;123:347-361.
11. **Cooper, D.K.C.** Resuscitation of the cadaver donor heart in the dog. (3) The influence of the agonal period on the success of resuscitation. Guy's Hospital Reports 1974;123:363-372.

### **1975**

12. **Cooper, D.K.C.** Observations on ischemic contracture of the heart (stone heart). Cardiovasc Res 1975;9:246-248.
13. **Cooper, D.K.C.** Haemodynamic studies during short-term preservation of the autoperfusing heart-lung preparation. Cardiovasc Res 1975;9:753-763.
14. **Cooper, D.K.C.** A simple method of resuscitation and short-term preservation of the canine cadaver heart. J Thorac Cardiovasc Surg 1975;70:896-908.

### **1976**

15. **Cooper, D.K.C.**, Belcher, J.R. Conservative surgery for bronchial adenomata. (Presented to The Thoracic Society, 1975), and subsequently published in Thorax 1976;31:44-48. PMID: PMC470360
16. **Cooper, D.K.C.**, Sturridge, M.F. Constrictive epicarditis following coxsackie virus infection. Thorax 1976;31:472-474. PMID: PMC470463
17. **Cooper, D.K.C.**, Sturridge, M.F. Acute massive mitral regurgitation from prosthetic valve dysfunction. Brit Heart J 1976;38:701-705. PMID: PMC483070

### **1977**

18. **Cooper, D.K.C.** The haematoxylin-basic fuchsin-picric acid staining reaction as a test of myocardial viability in resuscitated and preserved hearts. (Presented to the British Transplantation Society, London, UK, 1974.) Histochem J 1977;9:285-291.

### **1978**

19. **Cooper, D.K.C.**, Cleland, W.P., Bentall, H.H. Collagen diseases as a cause of constrictive pericarditis. (Presented to the Society of Thoracic and Cardiovascular Surgeons of Great Britain and Ireland, 1976) Thorax 1978;33:368-371. PMID: PMC470897.

## PUBLICATIONS (Cont)

### REFEREED ARTICLES (Cont):

#### 1979

20. **Cooper, D.K.C.**, De Leval, M.R., Stark, J. Results of surgical correction of persistent complete atrio-ventricular canal. (Presented to the British Cardiac Society, 1977.) Thor Cardiovasc Surg 1979;27:111-115.
21. Jackson, J.W., **Cooper, D.K.C.**, Guvendik, L., Reece-Smith, H. The surgical management of malignant tumours of the oesophagus and cardia: a review of the results in 292 patients treated over a 15 year period (1961-75). Br J Surg 1979;66:98-104.

#### 1980

22. **Cooper, D.K.C.**, Charles, R.G., Fraser, R.C., Beck, W., Barnard, C.N. Long-term survival after orthotopic and heterotopic cardiac transplantation. Br Med J 1980;281:1093-1096. PMID: PMC1714566
23. **Cooper, D.K.C.**, Norton, R., Mobin, M.A., Cleland, W.P., Bentall, H.H., Darrell, J.H. A comparison of two prophylactic antibiotic regimes for open-heart surgery. J Cardiovasc Surg (Torino) 1980;21:279-286.
24. English, T.A.H., **Cooper, D.K.C.**, Cory-Pearce, R. Recent experience with heart transplantation. (Presented to the Society of Thoracic and Cardiovascular Surgeons of Great Britain and Ireland, Leeds, UK, 1980 [Corey-Pearce et al. Abstract in Thorax 36, 78, 1981]). Br Med J 1980;281:699-702. PMID: PMC1713995

#### 1981

25. Barnard, C.N., Barnard, M.S., **Cooper, D.K.C.**, Curcio, C.A., Hassoulas, J., Novitzky, D., Wolpowitz, A. The present status of heterotopic cardiac transplantation. (Presented to the Society of Thoracic and Cardiovascular Surgeons of Great Britain and Ireland, Leeds, UK, 1980 [Cooper, et al., Abstract in Thorax 36, 78, 1981]). J Thorac Cardiovasc Surg 1981;81:433-439.
26. Barnard, C.N., **Cooper, D.K.C.** Clinical transplantation of the heart: a review of 13 years' personal experience. J R Soc Med 1981;74:670-674. PMID: PMC1438883.
27. Boyd, S.T., **Cooper, D.K.C.**, Baigrie, R., Rose, A.G., Barnard, C.N. An investigation of the immunosuppressive effects of niridazole and metronidazole in rat and baboon heterotopic cardiac allograft models. (Presented to the Southern African Transplantation Society, Hermanus, South Africa, 1981 [Abstract in S. Afr. J. Surg. 20, 63, 1982]). Transplantation 1981;31:326-329.

## PUBLICATIONS (Cont)

### REFEREED ARTICLES (Cont):

28. **Cooper, D.K.C.** The incidence of postoperative infection and the role of antibiotic prophylaxis in pulmonary surgery. A review of 221 consecutive patients undergoing thoracotomy. (Presented to the Society of Thoracic and Cardiovascular Surgeons of Great Britain and Ireland, 1977 [Abstract published in Thorax 33, 130, 1978]). Br J Dis Chest 1981;75:154-160.
29. **Cooper, D.K.C.** Management of oesophageal perforation associated with benign stricture and hiatus hernia by oesophagoplasty and fundoplication. Thorax 1981;36:541-542. PMID: PMC1020438.
30. Wicomb, W.N., Boyd, S.T., **Cooper, D.K.C.**, Rose, A.G., Barnard, C.N. Ex vivo functional evaluation of pig hearts subjected to 24 hours preservation by hypothermic perfusion. S Afr Med J 1981;60:245-248.

### 1982

31. **Cooper, D.K.C.**, Charles, R.G., Beck, W., Barnard, C.N. The assessment and selection of patients for heterotopic heart transplantation. S Afr Med J 1982;61:575-578.
32. **Cooper, D.K.C.**, Fraser, R.C., Rose, A.G., Ayzenberg, O., Oldfield, G.S., Hassoulas, J., Novitzky, D., Uys, C.J., Barnard, C.N. Technique, complications, and clinical value of endomyocardial biopsy in patients with heterotopic heart transplants. Thorax 1982;37:727-731. PMID: PMC459415
33. **Cooper, D.K.C.**, Hassoulas, J., Novitzky, D., Barnard, C.N. The results of orthotopic and heterotopic heart transplantation at Groote Schuur Hospital, 1967-1981. (Invited paper) J Heart Transplant 1982;1:112-115.
34. **Cooper, D.K.C.**, Rose, A.G., Barnard, C.N. Low-dose versus high-dose steroid therapy in the prevention of acute rejection in baboon heterotopic cardiac allografts. Transplantation 1982;34:107-108.
35. Lanza, R.P., **Cooper, D.K.C.**, Barnard, C.N. Effect of ABO blood group antigens on long-term survival after cardiac transplantation. N Engl J Med 1982;307:1275-1276.
36. Losman, J.G., Levine, H., Campbell, C.D., Replogle, R.L. Hassoulas, J., Novitzky, D., **Cooper, D.K.C.**, Barnard, C.N. Changes in indications for heart transplantation. An additional argument for the preservation of the recipient's own heart. J Thorac Cardiovasc Surg 1982;84:716-726.

## **PUBLICATIONS (Cont)**

### **REFEREED ARTICLES (Cont):**

37. Rose, A.G., Uys, C.J., **Cooper, D.K.C.**, Barnard, C.N. Donor heart morphology twelve and a half years after orthotopic transplantation. *J Heart Transplant* 1982;1:329-333.
38. Wells, F.C., **Cooper, D.K.C.**, Milstein, B.B., English, T.A.H. Emergency open-heart surgery. Experience with 100 consecutive cases. (Presented to the Thoracic Society, 1980 [Abstract published in *Thorax*, 35, 233]). *Scand J Thor Cardiovasc Surg* 1982;16:47-50.
39. Wicomb, W.N., **Cooper, D.K.C.**, Barnard, C.N. Twenty-four hour preservation of the pig heart by a portable hypothermic perfusion system. *Transplantation* 1982;34:246-250.
40. Wicomb, W.N., **Cooper, D.K.C.**, Hassoulas, J., Rose, A.G., Barnard, C.N. Orthotopic transplantation of the baboon heart after 20 to 24 hours' preservation by continuous hypothermic perfusion with an oxygenated hyperosmolar solution. (Presented to the Southern African Transplantation Society, Hermanus, South Africa, 1981 [Abstract in *S Afr J Surg.* 20, 67-68, 1982]). *J Thorac Cardiovasc Surg* 1982;83:133-140.

### **1983**

41. **Cooper, D.K.C.**, Chrispin, A.R., De Leval, M.R., Stark, J. Cryptic mediastinal masses causing airways obstruction. Presented to the British Paediatric Association, 1979. *Arch Dis Child* 1983;58:306-309. PMID: PMC1627952.
42. **Cooper, D.K.C.**, Lanza, R.P., Boyd, S.T., Barnard, C.N. Factors influencing survival following heart transplantation. *J Heart Transplant* 1983;3:86-91.
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### **2003**

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### **2004**

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### **OTHER PUBLICATIONS (Cont)**

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### OTHER PUBLICATIONS (Cont)

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### **OTHER PUBLICATIONS (Cont)**

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## **PUBLICATIONS (Cont)**

### **OTHER PUBLICATIONS (Cont)**

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### 2013

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### 2014

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### **OTHER PUBLICATIONS (Cont)**

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### **2015**

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### 2016

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### 2017

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### 2018

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### OTHER PUBLICATIONS (Cont)

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### 2019

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## PUBLICATIONS (Cont)

### DISSERTATIONS/THESES

1. **Cooper, D.K.C.** *Studies on resuscitation and short-term preservation of the canine heart.* Doctor of Philosophy, University of London, UK. 1974.
2. **Cooper, D.K.C.** *Clinical orthotopic and heterotopic heart transplantation: aspects of the University of Cape Town experience.* Doctor of Medicine, University of London, UK. 1986.
3. **Cooper, D.K.C.** *Modulation of the immune response to cardiac allografts and xenografts in the baboon, with special reference to donor-recipient ABO- incompatibility.* Master of Surgery, University of London, UK. 1994.
4. **Cooper, D.K.C.** *Glycobiological, immunological and non-immunological aspects of xenotransplantation.* A collection of 219 publications and patents. Doctor of Science (Medicine), University of London, UK. 2002.

## PROFESSIONAL ACTIVITIES

### TEACHING:

#### **TRAINED (Advisees or trainees)**

All were postdoctoral research fellows unless otherwise indicated. (I have not included the many surgical residents I helped train in the Department of Cardiothoracic Surgery at the University of Cape Town. At this center, the 6 faculty surgeons were responsible for the training of the 7 cardiothoracic surgical residents attached to the department at any one time.)

- **University of Cape Town Medical School, Cape Town, South Africa (1980-1987)**

Winston Wicomb PhD (1980-1985). PhD candidate and postdoctoral research fellow.

Director of Reserch Group, Regeneration Technologists, Inc., Alachua, Florida.

Dimitri Novitzky MD (1981-1985).

Professor of Cardiothoracic Surgery, University of South Florida, Tampa, USA.

Eduardo Becerra MD (1980-1981).

Surgeon (private practise), Hospital Gustavo Fricke, Vina del Mar, Chile.

Robert Lanza MD (Visiting medical student, 1981, 1982).

Senior scientist, Advanced Cell Technology, Shrewsbury, USA

Paul Human PhD (1985-1987). PhD candidate.

Staff Scientist, Department of Cardiothoracic Surgery, University of Cape Town, Cape Town, South Africa.

- **Oklahoma Transplantation Institute, Baptist Medical Center, Oklahoma City, USA (1987-1995)**

Chiara Liguori MD (1988-1989). Clinical transplant fellow.

Cardiologist, University of Alabama Medical School, Birmingham, USA

Yong Ye MD (1988-1995). Clinical transplant and research fellow.

Staff surgeon, Nazih Zuhdi Transplantation Institute, Integris Baptist Medical Center, Oklahoma City, USA.

Francisca Neethling PhD (1990-1997). PhD candidate and postdoctoral research fellow.

Director, Hybridoma Center, Department of Entomology and Plant Pathology, Oklahoma State University, Stillwater, USA.

Takaaki Kobayashi MD (1989-1990).

Assistant Professor, Department of Surgery II, Nagoya University Medical School, Nagoya, Japan.

Shigeki Taniguchi MD (1993-1995).

Chairman and Professor, Department of Cardiac Surgery, Nara Medical University, Nara, Japan.

Yigang Luo MD, PhD (1992-1995).

General surgeon (private practice), Windsor, Ontario, Canada.

Shifeng Li MD (1993-1995).

Assistant staff surgeon, Nazih Zuhdi Transplantation Institute, Integris Baptist Medical Center, Oklahoma City, USA.

## PROFESSIONAL ACTIVITIES (Cont)

### TEACHING (Cont):

### TRAINED (Advisees or trainees) (cont)

- **Oklahoma Transplantation Institute, Baptist Medical Center, Oklahoma City, USA (1987-1995) (Cont)**

Ahmad Jazzar MD (1991-1993). Clinical transplant fellow.

Gastroenterologist (private practice) Oklahoma City, USA.

Milan Kunjundzic MD. (1993-1994).

Physician, Croatia.

- **Transplantation Biology Research Center, Massachusetts General Hospital, Boston, USA (1996-2004)**

Tomasz Kozlowski MD (1996-1998).

Faculty, Department of Surgery, University of North Carolina, Chapel Hill, USA

Denis Lambrigts DVM (1997-1998).

Head of Veterinary Service, UCB-Pharma, Chemin du Foriest, Belgium.

Denise Van Calster DVM (1997-1998).

Veterinarian (private practice), Nandrin, Belgium.

Sanders Chae, MD, JD (1997-1998) (Postgraduate student)

Medical resident, New York

Satoshi Gojo MD (1998-2000).

Faculty cardiothoracic surgeon, Department of Cardiac Surgery, Saitama, Japan.

Leo Bühler MD, PhD (1997-2000).

Faculty surgeon, Department of Abdominal and Transplant Surgery, University Hospital Geneva, Geneva, Switzerland.

Ian P.J. Alwayn MD, PhD (1998-1999).

Faculty surgeon, Department of Surgery, Erasmus University Hospital Rotterdam, Rotterdam, The Netherlands.

Murali Basker MD (1998-2000).

Senior surgical resident, Chicago, USA.

James Z. Appel III MD (1999-2000). Medical student on a research fellowship of the Stanley J. Sarnoff Endowment for Cardiovascular Science.

Resident, Department of Surgery, Duke University Medical Center, Durham, USA.

Kazuhiko Teranishi MD (1999-2001).

Surgical resident, Department of Cardiac Surgery, Nagoya University Medical School, Nagoya, Japan.

Bernd Gollackner MD (2000-2002).

Faculty surgeon, Department of Surgery, Vienna General Hospital, Vienna, Austria.

Christoph Knosalla MD (2000-2002).

Faculty cardiothoracic surgeon, German Heart Institute, Berlin, Germany.

## PROFESSIONAL ACTIVITIES (Cont)

### TEACHING (Cont):

### TRAINED (Advisees or trainees) (cont)

- **Transplantation Biology Research Center, Massachusetts General Hospital, Boston, USA (1996-2004) (Cont)**

Jan Eckermann MD (Visiting medical student, 2001)

Medical Resident, USA

Frank J.M.F. Dor MD, PhD (2002-2004).

Surgical Resident, Department of Surgery, Erasmus University Hospital Rotterdam, Rotterdam, The Netherlands.

Kenji Kuwaki MD (2002-2004).

Faculty cardiothoracic surgeon, Department of Cardiothoracic Surgery, Sapporo University Hospital, Sapporo, Japan.

Reto M. Baertschiger MD (Visiting medical student, 2002)

Research Fellow, University Hospital Geneva, Geneva, Switzerland

Yau-Lin Tseng MD (2003-2004).

Faculty (thoracic surgeon) Department of Surgery, National Cheng Kung University Hospital, Taiwan.

Foad Rouhani MD (Visiting medical student, 2003)

Medical Resident, University of Cambridge, Cambridge, UK

Junaid Bajwa MD (Visiting medical student, 2003)

Medical Resident, St. Thomas' Medical School, London, UK

- **University of Pittsburgh School of Medicine, University of Pittsburgh Medical Center, Thomas E. Starzl Transplantation Institute, Pittsburgh, PA, USA (2004-Present)**

Pleunie Rood, MD (Postdoctoral Associate, 2004-2006), Emergency Room Physician, Erasmus University, Rotterdam, Netherlands

Xiaocheng Zhu, MD (Research Instructor, 2004-2005)

Research Faculty, Cleveland Clinic, Cleveland, USA

Hidetaka Hara, MD, PhD (Postdoctoral Associate, 2004-2007)

Promoted to Research Assistant Professor, University of Pittsburgh, Pittsburgh, USA, and subsequently Associate Professor, UAB, Birmingham, USA.

Mohammed Ezzelarab, MD (2004-2007)

Research Assistant Professor, University of Pittsburgh, Pittsburgh, USA, subsequently promoted to Associate Professor.

Cassandra Long BS (Research technician, subsequently laboratory manager, 2004-2016)

Jamie Busch (Postgraduate student, (2004-2005),

Physician, Palo Alto Medical Foundation Clinic, Palo Alto, CA, USA

Zuhaib Ibrahim (Visiting medical student, 2004)

Physician, Hershey Medical Center, Hershey, PA, USA

Phillip Chaffin (Postgraduate student, 2005)  
Physician, University of Minnesota, Minneapolis, MN, USA  
Yih Jyh Lin, M.D. (Postdoctoral Associate, 2005-2006)  
Surgical Faculty, National Cheng Kung University, Tainan, Taiwan

### **PROFESSIONAL ACTIVITIES (Cont)**

#### **TEACHING (Cont):**

#### **TRAINED (Advisees or trainees) (cont)**

- **University of Pittsburgh School of Medicine, University of Pittsburgh Medical Center, Thomas E. Starzl Transplantation Institute, Pittsburgh, PA (Cont)**

Hao-Chih Tai, M.D. (Postdoctoral Associate, 2005-2006)  
Surgical Faculty, National Taiwan University Hospital, Taipei, Taiwan  
Nathalie Campanile, M.D. (Postdoctoral Associate, 2006-2007)  
Physician, University of Geneva, Geneva, Switzerland  
Dirk van der Windt, M.S. (Predoctoral student, 2006-2009)  
Surgical resident, University of Pittsburgh Medical Center, Pittsburgh, PA, USA  
Peter Yeh (Undergraduate student, 2006-2009), Anesthesiology resident,  
University of Pittsburgh Medical Center, Pittsburgh, PA, USA  
Gabriel Echeverri, M.D. (Postdoctoral Associate, 2007-present)  
Surgical Faculty, University of Cali, Columbia  
Chih Che Lin, M.D. (Postdoctoral Associate, 2007-2009)  
Thomas d'Arville (Medical student, 2007), Resident Otolaryngology,  
George Washington University, Washington, DC, USA  
Daniel Welchons (Medical student, 2007-present), Medical resident, Brigham & Women's  
Hospital, Boston, MA, USA  
Claudia Montoya, M.D. (Postdoctoral Associate, 2007-2008)  
Physician, University of Cali, Columbia  
Burcin Ekser, M.D. (Postdoctoral Associate, 2007-2009 and 2010-present)  
Department of Transplantation Surgery III, Indiana School of Medicine, Indianapolis,  
IN, USA  
Humza Shaikh (Undergraduate student, 2008); Medical Student, University of Pittsburgh,  
Pittsburgh, PA, USA  
Naoko Koike, M.D. (Postdoctoral Associate, 2008)  
Department of Ophthalmology, Kansai Medical University, Osaka, Japan  
Zac Paulikowski (Undergraduate student, 2008), Medical resident, Ohio State  
University, OH, USA  
Dasha Roa Medellin, M.D. (Postdoctoral Associate, 2008-2009)  
Transplant Services Foundation Hospital Clínic i Provincial de Barcelona, Spain  
Eefje Dons, M.D. (Postdoctoral Associate, 2008-present), Surgical resident, Erasmus  
University, Netherlands  
Tyler Wilhite (Undergraduate student, 2008-2011), Medical student, Harvard Medical  
School, Boston, MA, USA



Tanner Crossley (Undergraduate student, 2009), Brigham Young University, Provo, Idaho, USA

Briana Ondich (Undergraduate student, 2009)

Ge (Jason) Feng (Undergraduate student, 2009-present), Medical resident, St. George's University, Grenada, West Indies

### **TEACHING (Cont):**

### **TRAINED (Advisees or trainees) (cont)**

- **University of Pittsburgh School of Medicine, University of Pittsburgh Medical Center, Thomas E. Starzl Transplantation Institute, Pittsburgh, PA (Cont)**

Seung Eun (Grace) Lee (Undergraduate student, 2009-present)

Jahanzeb Effendi (Medical student, 2010, Dow Medical College, Karachi, Pakistan), Physician, Karachi, Pakistan

Tadatsura Koshika, PhD (Postdoctoral Associate, 2010-2011), Research staff, Astellas, Japan

Goutham Kumar, MD (Visiting Fellow 2010-2011), Clinical transplant fellow, University of Pittsburgh Medical Center, Pittsburgh, PA, USA

Ruhina Mehra (Undergraduate student 2010-2013), University of Pittsburgh, Pittsburgh, PA, USA

Minoru Fujita, MD (Postdoctoral Associate 2010-2011), Faculty, Kawasaki Medical School, Kurashiki-City, Okayama, Japan

Hayato Iwase MD (Postdoctoral Associate 2011-present). Subsequently promoted to Instructor and then, at UAB, to Assistant Professor.

Maolin Jiang MD (Postdoctoral Associate 2011), Surgical Resident, Hengyang, China

Hao Zhou MD (Postdoctoral Associate 2011-2012), Surgical resident, Department of Urology and Kidney Transplantation, The Second Affiliated Hospital, University of South China, Hengyang, Hunan, China.

Jiang Li MD (Postdoctoral Associate 2011-2013), Surgical Resident, Hengyang, China

David Cohen (Visiting student 2011), Undergraduate, Northwestern University, Chicago, IL, USA

Gaurav Gulsin (Visiting medical student 2011), University of Aberdeen Aberdeen, United Kingdom

Oleg Andreyev (Undergraduate 2011-2014)

Yuko Miyagawa BSc (Technician 2012-2015)

Hector (Roberto) Lopez (Visiting student 2012-2013)

Vikas Satyananda M.D. (Postdoctoral Associate 2012-2013)

Clinical Transplant Fellow, University of Pittsburgh Medical Center, Pittsburgh, PA, USA)

Pietro Bajona (Postdoctoral Associate 2012-2013)

Clinical Fellow, Cardiovascular Surgery, Mayo Clinic, Rochester, MN, USA

Vladimir Lamm (Visiting postgraduate student 2012-2013)

Medical student, University of Pittsburgh, Pittsburgh, PA, USA

Whayoung Lee, MD (Postdoctoral Associate 2012-present)

Jennifer Nogay (Undergraduate student 2012-present)

Takayuki Tanaka, M.D. (Visiting postdoctoral scholar 2013-2014)  
Huidong Zhou MD (Postdoctoral Associate 2013-2014), Surgical resident,  
Department of Urology and Kidney Transplantation, The Second Affiliated Hospital,  
University of South China, Hengyang, Hunan, China.  
Santosh Nagaraju MD (Visiting postdoctoral scholar 2012-2014)  
Ali Malik (Visiting medical student 2013), Medical student, University of Aberdeen,  
Aberdeen, United Kingdom  
Rashib Humar (Undergraduate student 2013)  
Hong Liu MD (Visiting postdoctoral scholar 2014)  
Sahar Shaikh (Undergraduate student 2014 and 2015)  
Jagjit Singh MD (Visiting postdoctoral scholar 2014-2015)  
Bingsi Gao MD (Visiting post-doctoral scholar 2015-2016)  
Department of Urology and Kidney Transplantation, The Second Affiliated Hospital,  
University of South China, Hengyang, Hunan, China.  
Tao Li MD (Visiting postdoctoral scholar 2015-2016)  
Department of Urology and Kidney Transplantation, The Second Affiliated Hospital,  
University of South China, Hengyang, Hunan, China.  
Zhongqiang Zhang MD (Visiting postdoctoral scholar 2016-2017).  
Department of General Surgery, Second Xiangya Hospital of the Central South  
University, Changsha, Hunan, China.

### **Xenotransplantation Program, University of Alabama at Birmingham, Birmingham, AL**

Takayuki Yamamoto MD, PhD (Visiting scientist 2017-2019). Promoted to Instructor.  
Nagoya University School of Medicine, Nagoya, Japan)  
Qi Li MD (Visiting scientist 2017-2019)  
University of South China, Hengyang, Hunan, China  
Juan Li MD (Visiting scientist 2017-2018)  
University of South China, Hengyang, Hunan, China  
Liaoran Wang MD (Visiting scientist 2017-2018)  
University of South China, Hengyang, Hunan, China  
Hongmin Zhou MD (Visiting scientist 2017-2018)  
Department of Cardiothoracic Surgery, Tongji Hospital, Tongji Medical College,  
Huazhong University of Science and Technology, Wuhan, China  
Leah Schoel (medical student), UABMC, Birmingham, AL, USA (2017)  
Charles Adam Banks (medical student), UABMC, Birmingham, AL, USA (2017-present).  
Benjamin Smood (medical student), UABMC, Birmingham, AL, USA (2017-present).  
Guoqiang Zhang MD (Visiting scientist, 2018)  
School of Medicine, University of Nanchang, Nanchang, China  
Abhijit Jagdale MD (Visiting scientist, 2018-present)  
Department of Surgery, Byramjee Jeejeebhoy Government Medical College (BJGMC)  
and Sassoon Hospital, Pune, India.  
Kaitlin Hill BS (Researcher II, 2018)  
Yehua Cui MD (Visiting scientist, 2018)  
University of South China, Hengyang, Hunan, China.

Huy Quoc Nguyen MS (Researcher II, 2019-present)  
Mahmoud Adly MD (Visiting scientist, 2019-present)  
Muhamed Hamdi Bikheet MD (Visiting scientist, 2019-present)

### **Medical School (undergraduate/postgraduate)**

- 1965-1966 Lecturer on Anatomy, Harvard Medical School, Boston, USA. (Approximately 100 first year medical students.)
- 1966-1980 Supervisor in Anatomy, Fellow and Director of Studies in Medical Sciences, Magdalene College, University of Cambridge, Cambridge, UK.
- 1973-1980 Director of Studies in Medical Sciences, Magdalene College, Cambridge, UK
- 1975 Lecturer in Cardiothoracic Surgery, Royal Postgraduate Medical School, London, UK (postgraduate surgical teaching)
- 1981-1987 Senior Lecturer/Associate Professor, Department of Cardiothoracic Surgery, University of Cape Town Medical School, Cape Town, South Africa (undergraduate and postgraduate teaching) Organizer (with Professor A.G. Rose) of weekly Clinicopathological Meetings in Department of Cardiothoracic Surgery. Supervisor of 3 postdoctoral research fellows, 1 PhD candidate, 1 visiting medical student.
- 1987-1995 Director of Research and Education, Oklahoma Transplantation Institute, Baptist Medical Center, Oklahoma City, USA. Organizer of monthly Transplantation Research Seminars held jointly with members of the Oklahoma Medical Research Foundation and the University of Oklahoma Health Sciences Center. Supervisor of 8 postdoctoral clinical and research fellows and 1 PhD candidate.
- 1996-2004 Immunologist (Surgery), Massachusetts General Hospital and Lecturer on Surgery, Harvard Medical School, Boston, USA. Supervisor of 13 postdoctoral research fellows, 1 predoctoral research fellow, 1 postgraduate student and 4 visiting medical students.
- 2004-2005 Visiting Professor of Surgery (Research), Thomas E. Starzl Transplantation Institute, Department of Surgery, University of Pittsburgh Medical Center, Pittsburgh, USA. Organizer of weekly xenotransplantation research group meetings. Supervisor of 4 postdoctoral and 2 predoctoral research fellows and 1 visiting medical student.
- 2006-2016 Professor of Surgery (Research), Thomas E. Starzl Transplantation Institute, Department of Surgery, University of Pittsburgh Medical Center, Pittsburgh, USA. Organizer of weekly xenotransplantation research group meetings. Supervisor of 6 postdoctoral associates, 4 predoctoral students.
- 2016-present Professor of Surgery, Xenotransplantation Program, Department of Surgery, University of Alabama at Birmingham Medical Center, Birmingham, USA. Organizer of weekly xenotransplantation research group meetings. Currently, supervisor of 4 postdoctoral associates, 2 predoctoral students.

## PROFESSIONAL ACTIVITIES (Cont)

### TEACHING (Cont):

- Graduate medical courses
  - University of Pittsburgh School of Medicine, Pittsburgh, PA
    - 2004: Human Body Course, 1<sup>st</sup> Year Medical Students, Problem Bases Learning Sessions (Department of Surgery).
      - 10/7/2004 & 10/12/2004 Facilitator for Problem Bases Learning Sessions (Anatomy Course)
    - Cellular and Molecular Pathology (MSCMP: 3770)
      - 2006 (June 13, 2006: Xenotransplants) (May 9 to August 8, 2006)
      - 2007 (June 19, 2007: Xenotransplants)
- Local invited teaching presentations
- Continuing medical education courses
- Advisory and supervisory responsibilities in clinical or laboratory settings
- Teaching leadership roles
- Chaired sessions at scientific meetings of the
  - American Society of Transplant Surgeons
  - American Transplantation Congress
  - International Society for Heart and Lung Transplantation
  - Japan Society for Transplantation
  - Oklahoma Transplantation Society
  - Southern African Transplantation Society
  - The Transplantation Society
  - The Transplantation Society of Australia and New Zealand
  - The International Xenotransplantation Association
  - World Transplant Congress
  - Numerous other conferences in Europe, South Africa and the USA.
- Member of numerous steering committees for major congresses organized by
  - The International Society for Heart and Lung Transplantation
  - Oklahoma Transplantation Society (chairman)
  - Southern African Transplantation Society (chairman)
  - The Transplantation Society
  - The International Xenotransplantation Association.
- Served as advisor/examiner at the following universities:-
  - University of Cape Town, South Africa - MSc (1986)
  - University of Cape Town, South Africa – PhD candidate (1992)
  - University of Cambridge, UK - PhD candidate (1997)
  - Erasmus University, Rotterdam, The Netherlands – PhD candidate (2001)
  - University of New South Wales, Australia – PhD candidate (2003)
  - University of Melbourne, Australia – PhD candidate (2003)
  - University of Ghent, Belgium – PhD candidate (2006)
  - University of Toronto, Canada – PhD candidate (2006)

## **PROFESSIONAL ACTIVITIES (Cont)**

### **TEACHING (Cont):**

- Erasmus University, Rotterdam, The Netherlands – PhD candidate (2006)
- Imperial College, London, UK – PhD candidate (2006)
- University of Pittsburgh, USA – PhD candidate (2007)
- Erasmus University, Rotterdam, The Netherlands – PhD candidate (2008)
- University of Melbourne, Australia – PhD candidate (2008)
- University of Cape Town, RSA – PhD candidate (2008)
- University of London, UK – PhD candidate (2009)
- University of Pittsburgh – PhD candidate (2009)
- University of Pittsburgh – PhD candidate (2010)
- Erasmus University, Rotterdam, The Netherlands – PhD candidate (2011)
- Erasmus University, Rotterdam, The Netherlands – PhD candidate (2013)
- University of Alabama at Birmingham School of Medicine, 2 PhD candidates (PhD committees) (2018)

## **PROFESSIONAL ACTIVITIES (Cont)**

### **RESEARCH**

#### **CURRENT:**

- Xenotransplantation of organs and islets
- Induction of tolerance through spleen allotransplantation

#### **PAST:**

- Clinical heart transplantation
- Clinical heterotopic heart transplantation
- Donor heart storage
- Hemodynamic, physiologic, endocrine, and histopathologic changes following brain death in potential organ donors
- Hormonal replacement therapy of brain-dead potential organ donors
- ABO-incompatibility in organ transplantation

#### **FUNDING INFORMATION:**

|         |   |
|---------|---|
| 1972-73 | British Heart Foundation Junior Research Fellowship   |
| 1980-87 | Annual small grants from the Medical Research Council of South Africa and the Chris Barnard Fund for Cardiovascular and Transplantation Research, Cape Town, South Africa |
| 1988-92 | Substantial research support from Chembiomed Ltd., Edmonton, Canada   |
| 1988-95 | Research Grants (\$250,000 per annum) from Baptist Medical Center of Oklahoma Inc., Oklahoma City, USA  |
| 1993    | American Heart Association (Oklahoma Chapter) Grant (\$25,000)  |
| 1994-95 | Research Agreement with Alexion Pharmaceuticals Inc., New Haven, USA (\$135,000)  |
| 2000-05 | National Institutes of Health Program Project (with J. Fishman, S.C. Robson and D.H. Sachs) (\$8 million)   |

## PROFESSIONAL ACTIVITIES (Cont)

### RESEARCH

#### CURRENT FUNDING:

| <u>Grant Number<br/>(Funded)</u>        | <u>Grant Title</u>  | <u>Role in<br/>Project and<br/>Calendar<br/>Months</u> | <u>Years<br/>Inclusive</u>     | <u>Source \$<br/>Amount</u> |
|---|---|--|--------------------------------|-----------------------------|
| NIH<br>5P01HL10715202<br>(Desai)        | Therapeutic<br>assessment of<br>synthetic heparin<br>sulfates in<br>transplantation<br>models | PI<br>2.4 calendar<br>months                           | 04/01/11-<br>03/31/18          | \$308,572                   |
| NIH<br>5U19 AI 090959<br>(Cooper)       | Genetically-<br>engineered pig<br>organ<br>transplantation into<br>nonhuman<br>primates       | PI<br>4.0 calendar<br>months                           | 08/01/10-<br>07/31/15          | \$1,530,066<br>annually     |
| NIH<br>5U01 AI091197<br>(Thomson)       | Alemtuzumab and<br>regulatory T cells<br>for heart transplant<br>tolerance in<br>monkeys      | Co-PI<br>2.4 calendar<br>months                        | 07/01/10-<br>06/30/16<br>(NCE) | \$442,206<br>annually       |
| NIH<br>U19A<br>(Cooper)                 | Genetically-<br>engineered pig<br>organ<br>transplantation into<br>nonhuman<br>primates       | PI<br>4.0 calendar<br>months                           | 08-01-15-<br>07-31-20          | \$1,500,000<br>annually     |
| Peacock Award<br>China<br>(Bottino/Cai) | Neonatal islet<br>xenotransplantation   | Co-I<br>Variable                                       | 01-01-17-<br>12-31-21          | \$1,000,000<br>annually     |

## PROFESSIONAL ACTIVITIES (Cont)

### RESEARCH (Cont)

#### FUNDING INFORMATION (Cont)

| <u>Grant Number<br/>(Funded)</u>        | <u>Grant Title</u>   | <u>Role in Project<br/>and Percentage<br/>of Effort</u>                             | <u>Years<br/>Inclusive</u> | <u>Source<br/>\$ Amount</u>                     |
|---|--|---|----------------------------|---|
| <b><u>Completed</u></b>                 |  |   |                            |   |
| American Diabetes Association           | Tolerance induction by concomitant spleen & islet transplantation in MHC-defined miniature swine     | PI –20%   | 2004-06                    | \$99,999/year<br>(Total:<br>\$299,997)          |
| US Army Medical Research                | Endocrine pancreas regeneration<br>(PI: Massimo Trucco)  | Subcontract with CHP<br>(PI: David Cooper)<br>Salary support only<br>(DKCC, CS, NC) | 06/01/06-<br>05/31/07      | US Army Medical<br>\$169,972                    |
| Winter's Foundation Grant               | The noninvasive detection of cardiac rejection by magnetic resonance Imaging<br>(PI: Jeff Teuteberg) | Consultant<br>5% effort<br>No Salary Support  | 07/01/06-<br>06/30/07      | Samuel and Emma Winter's Foundation<br>\$10,500 |
| P5657135<br>(Revivacor)                 | Revivacor Inc.<br>(Sponsored Research Agreement)   | PI  | 2004-08                    | \$150,000                                       |
| U01-A1068642<br>(RFA-A1-04-042)         | Thromboregulation to prevent thrombotic micro-angiopathy   | PI – 28%  | 07/01/05-<br>06/30/09      | NIH/NIAID<br>\$2,812,597                        |
| NIH (ARRA)<br>5U01 AI 06631<br>(Robson) | Thromboregulatory strategies to prolong xenograft survival   | PI<br>1.0 calendar months   | 09/01/09-<br>08/31/11      | \$182,197                                       |
| NIH<br>U01 AI 051698                    | Rhesus monkey dendritic cells for transplant   | PI<br>1.2 calendar  | 07/01/07-<br>06/30/12      | \$316,769                                       |



|  |   |                              |                       |           |
|--|---|------------------------------|-----------------------|-----------|
| (Thomson)                                    | tolerance   |                              | months                |           |
| NIH (ARRA)<br>5U01 AI 06631<br>(Robson)      | Thromboregulatory<br>strategies to<br>prolong xenograft<br>survival           | PI<br>1.0 calendar<br>months | 09/01/09-<br>08/31/11 | \$182,197 |
| NIH (NHP Opps)<br>5U19 AI051731<br>(Thomson) | Tolerance to<br>cynomolgus<br>monkey ilset<br>allografts using<br>alemtuzumab | PI<br>1.0 calendar<br>months | 05/01/10-<br>04/30/11 | \$124,848 |

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

#### **1968**

1. "Heart transplantation." Public lecture, Bromley Public Library Lecture Series, Bromley, United Kingdom, 1968.

#### **1969**

2. "Heart transplantation." Seminar at the Frances Newton Hospital, Ferozepore, India, 1969.
3. "The experimental development of heart transplantation." Punjab Medical Society, Ferozepore, India, 1969.
4. "Clinical and experimental heart transplantation." Seminar at the Department of Medicine, Medical College of Amritsar, Amritsar, India, 1969.

#### **1978**

5. "Factors contributing to the mortality associated with open-heart surgery in infants." International Symposium on Pediatric Surgery, Munich, Germany, 1978.

#### **1983**

6. "Heart transplantation." Public lecture at invitation of the Provincial Minister of Health, Udine, Italy
7. "Heart transplantation at Groote Schuur Hospital, Cape Town." Seminar, Department of Cardiothoracic Surgery, Udine Hospital, Udine, Italy
8. "Orthotopic and heterotopic transplantation of the heart - the Cape Town experience." Hunterian Professor Lecture, Royal College of Surgeons of England, London, UK

#### **1985**

9. "Aspects of donation. (Chairman's introductory remarks.) South African Medical Research Council Symposium on Organ Transplantation, Parowvallei, South Africa, 1985. (Published in the SAMRC report, p.11)
10. "Clinical cardiac transplantation at Groote Schuur Hospital." South African Medical Research Council Symposium on Organ Transplantation. Parowvallei, South Africa, 1985. (Published in the SAMRC report, p.44)

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

11. "Cardiac allograft immunosuppression in the Chacma baboon." International Symposium on Immunosuppression, Cape Town, South Africa, 1985 (Published in the proceedings - Perspectives in Immunosuppression, edited by P Jacobs and C Macpherson, 1985, p. 178)

### **1986**

12. "Manipulations of the immune response to cardiac allografts and xenografts in the Chacma baboon. " South African Association for Laboratory Animal Science, Cape Town, South Africa, 1986.

### **1987**

13. "Is ABO compatibility essential in xenografting between closely related species?" International Symposium on ABO Incompatibility in Transplantation. Philadelphia, USA.

### **1988**

14. "Heart transplantation in Cape Town and Oklahoma." 10th Anniversary of the Papworth Heart Transplant Program, Cambridge, UK.
15. "Hormonal replacement therapy in the management of heart donors and recipients." 10th Anniversary of the Papworth Heart Transplant Program, Cambridge, UK.
16. "The pathophysiological effects of brain death on potential donor organs, with particular reference to the heart." Arris and Gale Lecture, Royal College of Surgeons of England, London, UK.

### **1989**

17. "Clinical heart transplantation." Visiting Professor, Department of Surgery, University of Tennessee Medical Center, Knoxville, USA
18. "The pathophysiology of the brain-dead potential organ donor." Visiting Professor, Department of Surgery, University of Tennessee Medical Center, Knoxville, USA
19. "Xenotransplantation." Visiting Professor, Department of Surgery, University of Tennessee Medical Center, Knoxville, USA

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

#### **1990**

20. "Management of the brain-dead potential organ donor." Global Plenum on Organ Transplantation, Lucknow, India.
21. "Harvesting and retrieval of heart and lung." Global Plenum on Organ Transplantation, Lucknow, India.
22. "Infection in the immunocompromised host." Global Plenum on Organ Transplantation, Lucknow, India.
23. "Xenotransplantation." Global Plenum on Organ Transplantation, Lucknow, India.

#### **1991**

24. "Allo- and xeno-transplantation in non-human primates." Symposium on Experimental Models in Transplantation Surgery, Cortona, Italy.
25. "Depletion of natural antibodies in non-human primates - a step towards successful discordant xenografting in man." First International Congress on Xenotransplantation, Minneapolis, USA.

#### **1992**

26. "Mechanism of lung injury associated with brain death." Workshop on Biology of Lung Preservation for Transplantation, National Institutes of Health, Bethesda, USA.
27. "Is xenotransplantation a realistic clinical option?" 10th CTS Anniversary and 100,000 CTS Transplants Congress, Heidelberg, Germany.
28. "The primate as a model in xenografting." Symposium "Xenografting - Does it Have a Future? Espace Europeen des Sciences et des Artes, Strasbourg, France.
29. "Non-immunological aspects of species compatibility." Medical Research Council / Agricultural and Food Research Council Immunology Workshop - Immune Intervention and Xenotransplantation, Oxford, UK.
30. "Chris Barnard—how others see him." Symposium to celebrate the 25th Anniversary of the First Heart Transplant, Cape Town, South Africa.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

31. "Heart transplantation with low mortality and low morbidity." Symposium to celebrate the 5th Anniversary of the First Heart Transplant, Cape Town, South Africa.
32. "Specific intravenous carbohydrate therapy - a new approach to the inhibition of antibody-mediated rejection following ABO-incompatible allografting and discordant xenografting." Symposium to celebrate the 25th Anniversary of the First Heart Transplant, Cape Town, South Africa.

### **1993**

33. "Is xenotransplantation a realistic clinical possibility." Visiting Professor Lecture Series, Allegheny General Hospital, Pittsburgh, USA.
34. "Current status of heart transplantation." Oklahoma State Chapter of the American Heart Association, Oklahoma City, USA.
35. "Xenografting-the future of heart transplantation." Transplant Technology Conference of St. Luke's Episcopal Hospital, Houston, USA.
36. "Neutralization of preformed antibodies." First "Nantes Actualities Transplantation" Conference, Nantes, France.
37. "The clinical potential of xenotransplantation." Second International Congress on Xenotransplantation, Cambridge, UK.
38. "New immunologic and pharmacologic approaches to xenotransplantation." General Panel Discussion on Xenotransplantation at the 79th Clinical Congress of the American College of Surgeons, San Francisco, USA.
39. "Alternatives to human cardiac transplantation - xenografting, mechanical replacement, cardiomyoplasty." Council on Clinical Cardiology and Cardiothoracic and Vascular Surgery, Symposium on Cardiac Transplantation: Expectations and Alternatives, 66th Scientific Sessions of the American Heart Association, Atlanta, USA.

### **1994**

40. "Heart transplantation." Seminar at Hospital Universitario "Dr. Jose E. Gonzalez, Monterrey, Mexico.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

41. "Intravenous carbohydrate therapy in discordant xenografting." International Business Communications 1<sup>st</sup> International Congress on Xenotransplantation, Strategies for Successful Xenotransplantation, Washington, D.C., USA.

### **1995**

42. "Xenotransplantation: State of the art." 10th Reunion Nacional de Coordinadores de Trasplantes, Santander, Spain.
43. "Human anti-pig antibodies and strategies for the prevention of hyperacute xenograft rejection." Estardo Actual Del Xenotrasplante Reunion Internacional, Santander, Spain.
44. "A history of clinical xenotransplantation." Estardo Actual Del Xenotrasplante Reunion Internacional, Santander, Spain.
45. "Contribution on scientific aspects of xenotransplantation." Workshop on Xenograft transplantation: science, ethics and public policy, Institute of Medicine of the National Academy of Sciences, Bethesda, USA.
46. "Manipulation of the anti- $\alpha$ Gal antibody -  $\alpha$ Gal epitope system in experimental discordant xenotransplantation." Third International Congress on Xenotransplantation, Boston, USA.
47. "Experimental progress and clinical perspectives in xenotransplantation." Fourth International Congress of the Asian Transplantation Society, Seoul, Korea.
48. "Research in xenotransplantation." Seminar at Sahlgren's University Hospital, University of Gothenburg, Goteborg, Sweden.
49. "Xenotransplantation." Seminar at Nextran, Inc., Princeton, USA.
50. "Xenograft transplantation." International Symposium on Heart Failure and Heart Transplantation, University of California at Los Angeles, Anaheim, USA.

### **1996**

51. "The potential role of oligosaccharide therapy in xenotransplantation." Seminar at the Transplantation Biology Research Center, Massachusetts General Hospital, Harvard Medical School, Boston, USA.
52. "Xenotransplantation and glycobiology." Seminar at the Mayo Clinic, Rochester, USA.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

53. "The potential role of oligosaccharide therapy in ABO-incompatible allografting and discordant xenografting." Seminar at the Lindsley F. Kimball Research Institute, New York Blood Center, New York, USA.
54. "Xenotransplantation: state of the art." Grand rounds, St. Vincent's Hospital, Sydney, Australia.
55. "Xenotransplantation: state of the art." Transplantation Society of Australia and New Zealand, Canberra, Australia.
56. "Oligosaccharide therapy in ABO-incompatible allografting and discordant xenografting." Seminar at the Walter and Eliza Hall Institute, Melbourne, Australia.
57. "Xenotransplantation - overview." Seminar at the Department of Cardiothoracic Surgery, Austin and Repatriation Medical Centre, Melbourne, Australia.
58. "Oligosaccharide therapy in ABO-incompatible allografting and discordant xenografting." Grand rounds, Austin and Repatriation Medical Centre, Melbourne, Australia.
59. "Current status of xenotransplantation." Grand Rounds, University of Southern California Medical Center, Los Angeles, USA.

### **1997**

60. "Improving the long-term survival of heart transplant patients." Japanese Society of Heart Transplantation, Osaka, Japan.
61. "Current status of xenotransplantation." Japanese Society of Heart Transplantation, Osaka, Japan.
62. "Heart transplantation today and tomorrow." Seminar at the Department of Surgery II, Nagoya University School of Medicine, Nagoya, Japan.
63. "The anti-pig antibody problem in xenotransplantation - studies in primates." Transplant Rounds, New England Deaconess Medical Center, Boston, USA.
65. "Historical perspectives on xenotransplantation." Sixth Annual Spring Clinical Nephrology Meeting of the National Kidney Foundation, Dallas, USA.
66. "Xenotransplantation-will it happen?" Symposium on Surgical Management of End-Stage Heart Failure into the Twenty-First Century, Washington, DC, USA.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

67. "Current advances in xenotransplantation." Massachusetts Biotechnology Council Sixth Annual Biotechnology Symposium, Boston, USA.
68. "Outwitting evolution - the glycobiology of xenotransplantation." Boston Glycobiology Group. Boston, USA
69. "Xenotransplantation." Seminar at Biocryst Inc., Birmingham, USA.
70. "The immunosuppression of natural antibody." Seminar at BioTransplant Inc., Charlestown, USA.
71. "Xenoantigens." Fourth International Congress for Xenotransplantation, Nantes, France.
72. "Current status of xenotransplantation." Gelin Memorial Lecture, Sahlgrenska University Hospital, University of Goteborg, Goteborg, Sweden.
73. "Xenotransplantation." British Transplantation Society (25th Anniversary Meeting), London, UK.
74. "Suppression of anti- $\alpha$ Gal antibody production." International Business Communications Third International Conference on Xenotransplantation, Boston, USA.

### **1998**

75. "The safety of xenotransplantation." New Dimensions in Transplantation, Florence, Italy.
76. "Xenotransplantation." (3 presentations.) Scandinavian Society for Immunology, 29th Annual Meeting and 14th Summer School, Copenhagen, Denmark.
77. "Physiological changes following brain death." Transplantation Society, Montreal, Canada.
78. "Xenotransplantation-will it happen?" Grand Rounds, Department of Surgery, Baylor University Medical Center, Dallas, USA
79. "Some interesting immunological and non-immunological aspects of xenotransplantation." Surgical Residents' Teaching Rounds, Baylor University Medical Center, Dallas, USA.
80. "Face the future-xenotransplantation." New England Organ Bank 30<sup>th</sup> Anniversary Symposium, Boston, USA.



## PROFESSIONAL ACTIVITIES (Cont)

### SEMINARS and INVITED LECTURESHIPS

81. "Non-immunological considerations in xenotransplantation." Symposium at Imperial College School of Medicine, University of London, Transplantation Symposium, London, UK.
82. "Xenotransplantation." Japan Society for Transplantation, Tokyo, Japan.

### 1999

83. "Xenotransplantation-will it happen?" Grand Rounds, Department of Surgery, Northwestern University Medical School, Chicago, USA.
84. "Experimental xenotransplantation." Expert Advisory Meeting on Xenotransplantation, Danish Board of Technology and University of Copenhagen, Copenhagen, Denmark.
85. "Efforts to induce tolerance in the pig-to-baboon model." Banbury Center (Cold Spring Harbor) Conference on *Xenotransplantation: A Scientific Basis for Risk Assessment*, Cold Spring Harbor, USA.
86. "Current results of experimental xenotransplantation in the pig-to-primate model." Food and Drug Administration Center for Biologics Evaluation and Research Xenotransplantation Subcommittee, Bethesda, USA.
87. "Histocompatibility barriers to xenotransplantation." American Society for Histocompatibility and Immunogenetics Regional Education Workshop, Detroit, USA.
88. "Clinical xenotransplantation – when will it happen?" Association of Organ Procurement Organizations (AOPO) 16<sup>th</sup> Annual Meeting, Providence, USA.
89. "Xenotransplantation – will it happen?" National Kidney Foundation of Maine / Maine Medical Center Conference. *Chronic Renal Failure and End-Stage Disease: New Concepts and Current Controversies*, Ogunquit, USA
90. "Xenotransplantation – will it happen?" United Network for Organ Sharing (UNOS) Region 10 Fall Conference, Indianapolis, USA.

### 2000

91. "Xenotransplantation – current status." Grand Rounds, Department of Surgery, Medical College of Georgia, Augusta, USA.

## PROFESSIONAL ACTIVITIES (Cont)

### SEMINARS and INVITED LECTURESHIPS

92. "Xenotransplantation – false dawn of real promise?" Transplant Grand Rounds, University of Cincinnati Medical School, Cincinnati, USA.
93. "Xenotransplantation – false dawn or real promise?" British Transplantation Society, Cardiff, UK.
94. "Christiaan Barnard - pioneer in heart transplantation." International Society for Heart and Lung Transplantation, Osaka, Japan.
95. "Report of the Xenotransplantation Advisory Committee." International Society for Heart and Lung Transplantation, Osaka, Japan.
96. "Xenotransplantation – false dawn or real promise? Ralph A. Mann Memorial Lecture, University of Manitoba Medical School, Winnipeg, Canada.
97. "Will the donor crisis be resolved with pig hearts?" Transplant 2000: First Joint Annual Meeting of the American Society of Transplant Surgeons and the American Society of Transplantation, Sunrise Symposium: *Controversies in heart and heart-lung transplantation*. Chicago, USA.
98. "Xenotransplantation: how close are we?" American Society for Histocompatibility and Immunogenetics Northeast Regional Education Workshop, Providence, USA.
99. "Immunomodulation: The immunology of hematopoietic cell allogeneic and xenogeneic transplantation and tolerance induction." WTEC Tissue Engineering U.S. Review Workshop, National Institutes of Health, Bethesda, USA.
100. "Xenotransplantation – how far have we come?" Seminar at Genentech, Inc, South San Francisco, USA.
101. "Current status of xenotransplantation." Transplant 2000: Congress of the Turkish Transplantation Centers Coordination Association, Istanbul, Turkey.
102. "Outwitting evolution – recent studies in xenotransplantation." Seminar at the John P. Roberts Research Institute, Department of Microbiology and Immunology, and Transplant Program, University of Western Ontario, London, Canada.

### 2001

103. "Making a pig of yourself – the promise of transplanting animal organs into humans." Seminar at Leverett House, Harvard College, Cambridge, USA.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

104. "The experimental and clinical history of xenotransplantation." US Secretary of Health and Human Services Advisory Committee on Xenotransplantation (SACX), Rockville, USA.
105. "Public comment – Report of the Xenotransplantation Advisory Committee of the International Society for Heart and Lung Transplantation." US Secretary of Health and Human Services Advisory Committee on Xenotransplantation (SACX), Rockville, USA.
106. "Some recent problems in xenotransplantation research." Instituto Venezolano de Investigaciones Cientificas, Caracas, Venezuela.
107. "The promise and problems of transplanting animal organs in humans." Immunology Club, Caracas, Venezuela.
108. "Recent research into xenotransplantation." Transplant Academia Presentation, Department of Surgery, Duke University Medical Center, Durham, USA.
109. "Making a pig of yourself – the promise and perils of transplanting animal organs in humans." Seminar at Duke University Medical Center, Durham, USA.
110. "Making a pig of yourself – the promise and problems of xenotransplantation." Biotech Advances: Medical and Ethical Dimensions, Foundation for American Communications, Harrison Conference Center, Lake Bluff, USA
111. "Xenotransplantation – how far have we come?" Grand Rounds, Department of Surgery, Erasmus University, Rotterdam, The Netherlands
112. "Aspects of the transplantation of animal organs into humans." Seminar at the Belfer Center for Science and International Affairs, John F. Kennedy School of Government, Harvard University, Cambridge, USA.
113. "Progress in xenotransplantation." British Journal of Urology International Guest Lecturer, British Association of Urological Surgeons Annual Meeting, Dublin, Ireland
114. "Xenotransplantation: physiological, ethical, legal, regulatory and financial aspects." World Artificial-Organ, Immunology and Transplantation Society (WAITS) 6<sup>th</sup> Symposium, Ottawa, Canada.
115. "Xenotransplantation - how far have we come?" 7<sup>th</sup> Basic Sciences Symposium of the Transplantation Society, Thun, Switzerland.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

116. "Presidential address." 6<sup>th</sup> Congress of the International Xenotransplantation Association, Chicago, USA.
117. "Meeting overview." 6<sup>th</sup> Congress of the International Xenotransplantation Association, Chicago, USA.
118. "Current research in organ xenotransplantation." Seminar at the Department of Cardiovascular Surgery, Stanford University Medical Center, Palo Alto, USA.
119. "Making a pig of yourself - the promise and problems of xenotransplantation." 27<sup>th</sup> Annual Meeting of the American Society for Histocompatibility and Immunogenetics, San Francisco, USA.
120. "Update on scientific progress in xenotransplantation: Highlights of the 6<sup>th</sup> Congress of the International Xenotransplantation Association.: US Secretary of Health and Human Services Advisory Committee on Xenotransplantation (SACX), Columbia, USA.
121. "Xenotransplantation." Seminar at the Southwest Regional Primate Research Center and Southwest Foundation for Biomedical Research, San Antonio, USA.

### **2002**

122. "Animal parts for humans? Xenotransplantation science, ethics, policy and public." Symposium, American Association for the Advancement of Science (AAAS), Boston, USA.
123. "Recent progress in xenotransplantation research." Texas Heart Institute 10<sup>th</sup> Annual Scientific Symposium, Houston, USA.
124. "How far have we come in xenotransplantation?" Cardiovascular Research Seminar, St Elizabeth's Medical Center, Boston, USA.
125. "Spleen transplantation - its potential to induce tolerance." Seminar at the Austin Research Institute, Austin and Repatriation Medical Centre, Melbourne, Australia.
126. "Xenotransplantation – clinical promise." Transplantation Society of Australia and New Zealand Postgraduate Course, Canberra, Australia.
127. "Making a pig of yourself - barriers to xenotransplantation." Transplantation Society of Australia and New Zealand, Canberra, Australia (Novartis Pharmaceuticals International Lecturer).

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

128. "Features of endothelial cell activation in the pig-to-primate organ transplant model." Xenotransplantation Lectures. Transplantation Society of Australia and New Zealand, Canberra, Australia (Novartis Pharmaceuticals International Lecturer).
129. "The problem of natural antibody in xenotransplantation." Seminar at the Pancreas Transplant Unit, Prince of Wales Hospital, University of New South Wales, Sydney, Australia.
130. "Outwitting evolution - the promise and problems of xenotransplantation." Seminar at the Department of Cardiothoracic Surgery, Green Lane Hospital, Auckland, New Zealand.
131. "Christiaan Barnard – his life and work." Lecture at the Department of Cardiothoracic Surgery, Green Lane Hospital, Auckland, New Zealand.
132. "The hope of xenotransplantation." Stem Cell Research, Cloning, and Other Medical Advances, Foundation for American Communications, Cambridge, USA.
133. "The surgical anatomy of experimental and clinical thoracic organ transplantation." Arnott Lecture, Royal College of Surgeons of England, Glasgow, UK
134. "Organ xenotransplantation in nonhuman primates - current status." Plenary lecture, 19<sup>th</sup> International Congress of the Transplantation Society, Miami, USA.
135. "Xenotransplantation – the next great surgical revolution?" Plenary lecture, 33<sup>rd</sup> World Congress of the International College of Surgeons, Taipei, Taiwan
136. "Making a pig of yourself - is clinical xenotransplantation close to being a reality?" British Expats in Life Sciences (BELS), Boston, USA.

### **2003**

137. "Reading from book: Chris Barnard - by those who know him". Opening of Senior Common Room Library, Leverett House, Harvard College, Cambridge, USA.
138. "Outwitting evolution - the promise and problems of xenotransplantation." Seminar, New England Biolabs, Beverly, USA
139. "Xenotransplantation – update 2003." Texas Heart Institute 11<sup>th</sup> Annual Scientific Symposium, Houston, USA.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

140. "Outwitting evolution - how close are we to clinical xenotransplantation?" Keynote lecture, Japan Xenotransplantation Society 6<sup>th</sup> Annual Congress, Okayama, Japan.
141. "Recent progress towards clinical organ xenotransplantation." Seminar, Nagoya University School of Medicine, Nagoya, Japan.
142. "Making a pig of yourself - how close are we to the transplantation of pig organs into humans?" Presentation at a Pharmacia Inc-sponsored event at the British Consulate General, Cambridge, USA.
143. "Semmelweis today?" Speech at Semmelweis Medical University, Budapest, Hungary, on the occasion of the birth of Ignac Semmelweis
144. "Carbohydrates and xenotransplantation: how far have we come?" Plenary lecture, Eurocarb 12, Grenoble, France
145. "Outwitting evolution – how close are we to clinical xenotransplantation?" National Kidney Foundation of Maine / Maine Medical Center, Portland, Conference: The Future of Renal Replacement Therapy and Transplantation, Portland, USA.
146. "Vascular rejection of xenografts." Participant in Workshop of Seventh International Xenotransplantation Congress, Glasgow, UK
147. "Immunosuppression protocols for clinical xenotransplantation." Participant in workshop of Seventh International Xenotransplantation Congress, Glasgow, UK
148. "Xenotransplantation." Lecture, GKT (Guy's, King's, St Thomas's) Surgical Society, King's College, University of London, London, UK
149. "Making a pig of yourself: how close are we to clinical xenotransplantation?" Seminar, Baylor Institute for Immunology Research, Baylor University Medical Center, Dallas, USA.
150. "Tolerance induction in xenotransplantation." State-of-the-Art Lecture, University of Geneva School of Medicine Wyeth Symposium: Islet Transplantation and Immune Tolerance, Geneva, Switzerland
151. "Tissue transplantation in humans: ethics and practicalities." Seminar, Magdalene College Science Society, University of Cambridge, Cambridge, UK
152. "Xenotransplantation." Seminar, Christ's College Medical Society, University of Cambridge, Cambridge, UK

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

#### **2004**

152. "Xenotransplantation – how close are we?" Seminar, Division of Liver Transplantation, Department of Immunology and Organ Transplantation, University of Texas Health Science Center, Houston, USA.
153. "Recent progress in pig-to-baboon heart transplantation." US Secretary of Health and Human Services Advisory Committee on Xenotransplantation (SACX), Bethesda, USA.
154. "Challenges and benefits of inter-species transplantation (xenografts)." Lecture, Whitney Symposium, 2004 - Bionics, General Electric Global Research, Schenectady, New York, USA.
155. "Making a pig of yourself: a surgeon's view of the glycobiology of xenotransplantation." R.U. Lemieux Lecture on Glycobiology, University of Alberta, Edmonton, Canada.
156. "Christiaan Neethling Barnard: contributions and controversies – a personal view." American Osler Society, 34<sup>th</sup> Annual Meeting, Houston, USA.
157. "Xenotransplantation – an alternative to stem cells?" Symposium, Frontiers in Human Embryonic Stem Cells, Pittsburgh Development Center, Pittsburgh, USA.
158. "Xenotransplantation." Cell Biology Lecture Series, University of Pittsburgh, Pittsburgh, USA.
159. "Xenotransplantation update." 25<sup>th</sup> Anniversary of the Heart Transplant Program at Papworth Hospital, Cambridge, UK.
160. "The long road towards clinical xenotransplantation – how far have we come?" Department of Immunology Lecture Series, University of Pittsburgh, Pittsburgh, USA.
161. "The surgical anatomy of experimental and clinical thoracic organ transplantation." 57<sup>th</sup> Annual Meeting of the Japanese Association for Thoracic Surgery, Sapporo, Japan.
162. "Clinical and experimental xenotransplantation – past, present, and future." 57<sup>th</sup> Annual Meeting of the Japanese Association for Thoracic Surgery, Sapporo, Japan.
163. "Clinical xenotransplantation - how close are we?" Joshua Miller Transplant Fellows Symposium, Scottsdale, USA.
164. "Clinical xenotransplantation - how close are we?" Starzl Transplantation Institute Research Conference, University of Pittsburgh, Pittsburgh, USA.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

#### **2005**

165. "Current status of research into xenotransplantation." Invited presentation for symposium on Stem Cells and Xenotransplantation, Magee Womens Research Institute, University of Pittsburgh, Pittsburgh, USA.
166. "Outwitting evolution – how close are we to clinical xenotransplantation." Invited presentation for the 13<sup>th</sup> Annual Medical Sciences Graduate Students' Association Symposium: "Minds without Boundaries: Frontiers in Medical Research", University of Calgary, Calgary, Canada.
167. "Transplantation of organs from  $\alpha$ Gal-KO pigs into primates." Invited presentation for 9<sup>th</sup> Basic Sciences Symposium, La Baule, France.
168. "GT-KO pigs – Where do we go from here?" Invited presentation at the 8<sup>th</sup> International Xenotransplantation Congress, Goteborg, Sweden.
169. ABO-incompatible allotransplantation as a basis for clinical xenotransplantation. (Co-Chair, Workshop W1). Symposium at the 8<sup>th</sup> International Xenotransplantation Congress, Goteborg, Sweden.
170. "Making a pig of yourself - how close are we to clinical xenotransplantation?". National Association for Science Writers and the Council for the Advancement of Science Writing. Pittsburgh, USA.
171. "Recent developments in heart xenotransplantation using  $\alpha$ 1,3-galactosyltransferase gene-knockout (GT-KO) pigs." 12<sup>th</sup> Congress of the European Society for Organ Transplantation and 14<sup>th</sup> Congress of the European Transplant Coordinators Organization. Geneva, Switzerland.

#### **2006**

172. "Making a pig of yourself – ethical aspects of xenotransplantation." Bioethics Grand Rounds, Center for Bioethics and Health Law, University of Pittsburgh, Pittsburgh, USA.
173. "Xenotransplantation technology." 2006 Food and Drug Administration (FDA) Science Forum: A Century of FDA Science, Pioneering the Future of Public Health. Washington DC, USA.
174. "The seeing finger – the story of closed mitral valvotomy." American Otolaryngology Society, 36<sup>th</sup> Annual Meeting, Halifax, Canada.



## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

175. "Outwitting evolution – current research into xenotransplantation." University of Toronto, Toronto, Canada
176. "GT-KO was an essential step towards successful pig organ transplantation in primates." Xenotransplantation Satellite Symposium, International Xenotransplantation Association. Advances in Xenotransplantation: Is the Gal knock-out pig essential to clinical success? World Transplant Congress, Boston, USA.
177. "Xenotransplantation Update." NATCO 31<sup>st</sup> Annual Meeting, Chicago, USA
178. "Making a pig of yourself: how close are we to clinical xenotransplantation." 1<sup>st</sup> Joint Meeting of the European National Societies of Immunology and 16<sup>th</sup> European Congress of Immunology. Paris, France.
179. "A general overview of the state of xenotransplantation research." University of Ghent, Ghent, Belgium.
180. "Bringing home the bacon – how close are we to clinical trials in xenotransplantation." Imperial College London, UK
181. "Frankenswine, or bringing home the bacon – how close are we to clinical trials of xenotransplantation." Erasmus University, Rotterdam, The Netherlands
182. "Frankenswine, or bringing home the bacon – how close are we to clinical trials of xenotransplantation?" Regeneration Technologies, Inc., Gainesville, USA

### **2007**

183. "How close are we to clinical trials of xenotransplantation?" Department of Surgery, University of Cambridge, Addenbrookes Hospital, Cambridge, UK
184. "The Club of Rome revisited: Where will we be in 15 years from now?" Texas Heart Institute Annual Meeting, Houston, USA
185. "Frankenswine, or bringing home the bacon – how close are we to clinical trials of xenotransplantation?" Department of Surgery, University of Maryland, Baltimore, USA
186. "The surgical treatment of 'blue babies' – Alfred Blalock and Russell Brock, the Southern gentleman and the English lord." American Osler Society, 37<sup>th</sup> Annual Meeting, Montreal, Canada

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

187. "The primate model." Pig-to-Man Islet Transplantation Summit, Nobel Forum, Stockholm, Sweden
188. "Current status of xenotransplantation research in the USA." 10<sup>th</sup> Minisymposium on Xenotransplantation, German Working Group on Xenotransplantation, Robert Koch Institute, Berlin, Germany.
189. "How close are we to clinical xenotransplantation?" German Heart Center, Berlin, Germany.
190. "Bridging to allotransplantation with a pig heart – current considerations." Joint Meeting of the International Xenotransplantation Association (IXA), the International Pancreas and islet Transplant Association (IPITA), and the Cell Transplant Society (CTS), Minneapolis, USA.
191. "Recent studies in xenotransplantation." Thomas E. Starzl Transplantation Institute Research Faculty Seminar Series, University of Pittsburgh, Pittsburgh, USA.
192. "Recent progress in xenotransplantation research." Immunology Group, Department of Surgery, University of Oxford, Oxford, UK.
193. "Frankenswine, or bringing home the bacon – how close are we to clinical trials of xenotransplantation?" Grand Rounds, Department of Surgery, University of Oxford, Oxford, UK.
194. "How close are we to clinical trials of xenotransplantation?" Grand Rounds, Department of Surgery, University of Texas Medical Center, San Antonio, USA
195. "Change". After-dinner speech to Magdalene in America, New York, USA.

### **2008**

190. "Frankenswine, or bringing home the bacon – how close are we to clinical trials of xenotransplantation?" Renal Research Seminar, Washington University Medical School, St Louis, USA.
191. "Islet xenotransplantation – current research and clinical prospects." Departments of Surgery and Immunology Research Seminar, Molecular Medicine Postgraduate School, Erasmus University Rotterdam, Rotterdam, The Netherlands.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

192. "Glycobiological aspects of cross-species organ transplantation." Biological Chemistry Seminar Series, Department of Chemistry, University of Pennsylvania, Philadelphia, USA.
193. "Biology of xenotransplantation". FASEB Summer Research Conference on Transplantation Immunology, New Haven, USA.
194. "Outcome for Gal-knockout pigs for cardiac transplantation." State-of-the Art Lecture, Twenty-Second Annual Congress of the Transplantation Society, Sydney, Australia.
195. "Future sources of islets for islet transplantation: the case for xenotransplantation." Early Morning Workshop JDRF Debate, Twenty-Second Annual Congress of the Transplantation Society, Sydney, Australia.
196. "Norman Shumway, Christiaan Barnard, and the story of heart transplantation." Keynote address, 5<sup>th</sup> Annual J. Willis Hurst History of Medicine Symposium, Emory University School of Medicine, Atlanta, USA.
197. "Six minutes! Wilfred Bigelow, F. John Lewis, Henry Swan, and the first open heart surgery using hypothermia." American Osler Society, 38<sup>th</sup> Annual Meeting, Boston, USA.

### **2009**

198. "Present status of xenotransplantation research." (With Hidetaka Hara, MD, PhD, and David Ayares PhD.) Research Seminar, Holland Laboratory, American Red Cross, Rockville, USA.
199. "The next great medical revolution – the science and ethics of xenotransplantation." Forum, First Unitarian Church of Pittsburgh, Pittsburgh, USA.
200. "John Gibbon, Walt Lillehei, and the development of the heart-lung machine." American Osler Society, 39<sup>th</sup> Annual meeting, Cleveland, USA.
201. "Liver transplantation in baboons using genetically-modified pigs as donors: initial experience." (With Burcin Ekser, MD.) Seminar, Transplantation Unit, Indiana University School of Medicine, Indianapolis, USA.
202. "Norman Shumway, Christiaan Barnard, and the history of heart transplantation." Seminar, Osher Lifelong Learning Institute at Carnegie Mellon University, Pittsburgh, USA.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

203. "Role of previous xenografts on the outcome of an allograft". Special symposium, The hyperimmunized patient. International Pancreas and Islet Transplantation Association (IPITA) / International Xenotransplantation Association (IXA) joint meeting, Venice, Italy.
204. "Which xenotransplantation trial should start first? Heart xenotransplantation." International Pancreas and Islet Transplantation Association (IPITA) / International Xenotransplantation Association (IXA) joint meeting, Venice, Italy.
205. "Outwitting evolution." Address on the occasion of the presentation of Honorary Membership of the International Xenotransplantation Association, Venice, Italy.
206. "Chris Barnard and the story of heart transplantation." Argonauts Club, Worcester, USA.

### **2010**

212. "The immense potential of xenotransplantation." Research seminar, Nanjing Medical University, Nanjing, China.
213. "The immense potential of xenotransplantation." Research seminar, Guangzhou Institutes of Biomedicine and Health, Chinese Academy of Sciences, Guangzhou, China.
214. "Recent studies on liver xenotransplantation." Research seminar, Department of Surgery, The First Affiliated Hospital, College of Medicine, Zhejiang University, Hangzhou, China.
215. "The floodgates open – Vasilii Kolesov, Mason Sones, Rene Favaloro, and surgery for coronary artery disease." American Osler Society, 40<sup>th</sup> Annual meeting, Rochester, MN, USA.
216. "Pig to baboon liver transplantation." Sunrise Symposium, 'Xenotransplantation: Advances and Challenges. American Transplant Congress, San Diego, USA.
217. "Toward clinical application?" New Findings in Xenotransplantation and Vascular Cytoprotection. Sixteenth NAT Meeting, Nantes, France.
218. "The immense potential of xenotransplantation. Seminar (with Mohamed Ezzelarab MD), Oklahoma Medical Research Foundation, Oklahoma City, USA.
219. "Gal KO and complement regulators: how far have they taken us?" Sunrise Symposium, 'Genetically modified pigs for xenotransplantation', Twenty-Third International Congress of The Transplantation Society, Vancouver, Canada.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

220. "Seize the opportunity, and be the best you can possibly be." Presentation to the prizewinners at Langley Park School for Boys, Beckenham, Kent, UK.
221. "Chris Barnard and the story of heart transplantation." Weisse Lecture in the History of Medicine, Grand Rounds, Department of Medicine, New Jersey School of Medicine and Dentistry, Newark, USA.
222. "Future of cardiothoracic xenotransplantation." Contribution to course, 'Surgical treatment for end-stage cardiopulmonary disease.' University of Pittsburgh Medical Center, Pittsburgh, USA.
223. "Open Heart – the radical surgeon who revolutionized medicine." Lecture and book signing, Joseph-Beth Booksellers, Pittsburgh, USA.
224. "Open Heart – the radical surgeon who revolutionized medicine." Lecture and book signing, University of Minnesota Bookshop, Minneapolis, USA.
225. "Open Heart – the radical surgeon who revolutionized medicine." Lecture and book signing, Barnes & Noble Bookshop, Philadelphia, USA.
226. "Open Heart – the radical surgeon who revolutionized medicine." Lecture and book signing, Brazos Bookshop, Houston, USA.
227. "Recent progress in xenotransplantation research." Xenotransplantation Research Group, Seoul National University, Seoul, Korea.
228. "Xenogeneic islet transplantation." Plenary lecture. Korean Transplantation Society, Seoul, Korea.
229. "Can genetically engineered pigs provide corneas for clinical transplantation?" Research seminar (with Dr Hidetaka Hara), Louis J. Fox Center for Vision Restoration, University of Pittsburgh, Pittsburgh, USA.
230. "Xenotransplantation – state of the art review." Research seminar, Pfizer Transplant Group, Pfizer, Inc., Collegeville, USA.
231. "If pigs could fly – will pig organs resolve the shortage of human donor organs?" Transplant Rounds, Department of Surgery, University of California San Diego, La Jolla, USA.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

- 232. "Frankenswine, or bringing home the bacon – recent progress in xenotransplantation research." Nephrology Grand Rounds, University of California San Diego, La Jolla, USA.
- 233. "Outwitting evolution – how close are we to clinical xenotransplantation?" Surgery Grand Rounds, University of California San Diego, La Jolla, USA.
- 234. "Open Heart – the radical surgeon who revolutionized medicine." Forum, First Unitarian Church of Pittsburgh, Pittsburgh, USA.

### **2011**

- 235. "Chris Barnard, and the story of heart transplantation." C.F. Reynolds Medical History Society, Pittsburgh, USA.
- 236. "The present state of xenotransplantation research." International Transplant Nurses Society (ITNS) Golden Triangle Chapter Annual Symposium, Pittsburgh, USA.
- 237. "A brief history of cross-species organ transplantation." American Osler Society, 41st Annual Meeting, Philadelphia, USA.
- 238. "Outwitting evolution: recent progress in xenotransplantation research." American Association of Immunology, San Francisco, USA.
- 239. "Xenotransplantation: the next great medical revolution." Contribution to symposium 'Research that Matters' for patients and families, Thomas E. Starzl Transplantation Institute, Pittsburgh, USA.
- 240. "Overcoming the immune barriers to islet xenotransplantation." International Pancreas and Islet Transplantation Association, Prague, Czech Republic.
- 241. "The college." After-dinner speech to Magdalene in America, New York, USA.
- 242. "Medical writing – a personal experience." Seminar, Osher Lifelong Learning Institute at the University of Pittsburgh, Pittsburgh, USA.
- 243. "Pig organ and cell xenotransplantation – how close are we to clinical trials?" Seminar, Transplantation Immunology Group, Imperial College London, Harefield Hospital, London, UK

## PROFESSIONAL ACTIVITIES (Cont)

### SEMINARS and INVITED LECTURESHIPS

#### 2012

244. "If pigs could fly – the current status of xenotransplantation research." Cape Town Transplantation Group, Cape Town, South Africa.
245. "The daring young men who pioneered heart surgery." Lecture at the Chris Barnard Museum, Cape Town, South Africa.
246. "Chris Barnard and the story of heart transplantation." Cardiothoracic Surgical Rounds, Groote Schuur Hospital/University of Cape Town, Cape Town, South Africa.
247. "Has xenotransplanting come of age?" Nephrology at the Limits III, Annual Scientific Symposium (in collaboration with *The Lancet*), Cape Town, South Africa.
248. "Chris Barnard and the story of heart transplantation." Grand Rounds, Department of General Surgery, Groote Schuur Hospital/University of Cape Town, Cape Town, South Africa.
249. "Islet xenotransplantation as a cure for diabetes." 15<sup>th</sup> Mildred 'Barry' Friedman Lecture, Department of Medicine, State University of New York Downstate, Brooklyn, New York, USA.
250. "Ethical concerns relating to clinical trials of cross-species organ transplantation." American Osler Society, 42<sup>nd</sup> Annual Meeting, Chapel Hill, USA.
251. "Systemic inflammation in xenograft recipients." (with Mohamed Ezzelarab.) 15<sup>th</sup> Berlin Symposium on Xenotransplantation (in association with the 24<sup>th</sup> International Congress of the Transplantation Society), Robert Koch Institute, Berlin, Germany.
252. "Islet and organ xenotransplantation – how close are we to clinical trials?" Seminar, Institute of Child Health, Great Ormond Street Hospital, University College London, London, UK.
253. "A strategy towards clinical pig islet xenotransplantation." International Consultation Summit on Xenotransplantation. Central South University, Changsha, China.
254. "How close are we to clinical trials of xenotransplantation?" Seminar, Second Affiliated Hospital, University of South China, Hengyang City, Hunan, China.
255. "Potential for clinical pancreatic islet xenotransplantation". Indo-US Science & Technology Forum, Asian Institute of Gastroenterology and Asian Healthcare Foundation, Hyderabad, India.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

256. "Xenotransplantation - hope for the future." Leadership Summit of the Transplant Recipients International Organization (TRIO), Pittsburgh, USA.
257. "What is new in xenotransplantation?" Thomas E. Starzl Transplantation Institute 2012 Fall Scientific Retreat, Pittsburgh, USA.
258. "Frankenswine, or bringing home the bacon – how close are we to clinical xenotransplantation?" Seminar, Institute of Transplantation, Freeman Hospital, Newcastle University, Newcastle-upon-Tyne, UK.
259. "Clinical islet xenotransplantation, how close are we?" Interview on Diabetes Radio.

### **2013**

260. "Pioneers in the development of the total artificial heart." American Osler Society, 43<sup>rd</sup> Annual Meeting, Tucson, USA.
261. "Xenotransplantation – the next great medical revolution?" Grand Rounds, University of South Carolina School of Medicine at Greenville, SC, USA.
262. "Chris Barnard and the story of heart transplantation." Luminaries in Medicine Series, University of South Carolina School of Medicine at Greenville, SC, USA.
263. "Progress towards fulfilling the immense potential of xenotransplantation." Division of Allergy, Immunology, and Transplantation, NIAID, National Institutes of Health, Bethesda, USA.
264. "The current state of xenotransplantation research." Food and Drug Administration Center for Veterinary Medicine Staff College, Rockville, USA
265. "The brain-dead organ donor: pathophysiology and management." Second Affiliated Hospital, Guangzhou Medical University, Guangzhou, China.
266. "Xenotransplantation research – current status." Southern Medical University, Guangzhou, China.
267. "Preclinical studies in the pig-to-nonhuman primate model: preclinical efficacy." First International Conference on Clinical islet Xenotransplantation (ICCIX), Osaka, Japan.
268. "Heart – current progress in xenotransplantation". International Xenotransplantation Association, Osaka, Japan



## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

#### **2014**

269. "Clinical xenotransplantation - if not now, then when?" Nagoya University School of Medicine, Nagoya, Japan.
270. "Progress towards clinical corneal xenotransplantation using genetically-engineered pigs. (with Dr. Hidetaka Hara). McGowan Institute for Regenerative Medicine, University of Pittsburgh, Pittsburgh, USA.
271. "New insights in islet xenotransplantation." 4<sup>th</sup> Joint EPITA (European Pancreas and Islet Transplantation Association) and AIDPIT (Artificial Insulin Delivery, Pancreas and Islet Transplantation) Winter Symposium, Igls, Innsbruck, Austria.
272. "The brain-dead organ donor: pathophysiology and management." Transplant Rounds, Thomas E. Starzl Transplantation Institute, University of Pittsburgh, Pittsburgh, PA, USA.
273. "Making a pig of yourself: ethical aspects of xenotransplantation". MRI Ethics Group, Carnegie Mellon University, Pittsburgh, USA.
274. "Men who dared to fail - the daring young men who pioneered heart surgery." Atlanta Medical History Society, Atlanta, USA
275. "Current progress in xenotransplantation." Meeting of the German Consortium on Xenotransplantation, Munich, Germany.
276. "Islet xenotransplantation." (with Hering B, Park C-G, O'Connell P). IPITA Opinion Leaders Consensus Meeting on Beta Cell Replacement, Oxford, UK.
277. "John Collins Warren (1778-1856) – American surgeon in London". American Osler Society 44th Annual Meeting, Oxford, UK.
278. "Islet xenotransplantation: pre-clinical efficacy and complication data required to justify a clinical trial." Second International Conference on Clinical Islet Xenotransplantation (ICCIX), San Francisco, USA.
279. "Clinical cardiac xenotransplantation – how close are we? 24<sup>th</sup> Annual World Congress of the World Society of Cardiothoracic Surgeons (WSCTS), Geneva, Switzerland.
280. "A brief history of heart surgery." Ether Discovery Celebration Lecture, Dalhousie University, Halifax, Canada.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

281. "Future of islet xenotransplantation." (with Rita Bottino) 1<sup>st</sup> Cleveland Clinic Beta Cell Therapy Symposium: Advances in Management of Diabetes, Cleveland, USA.
282. "Recent progress in organ xenotransplantation." 3<sup>rd</sup> Korean Xenotransplantation Association Symposium, Seoul, South Korea.
283. "Islet xenotransplantation: how close are we to clinical trials?" 13<sup>th</sup> Beta Cell Research and Islet Transplantation Symposium, Seoul, South Korea.
284. "Current status of solid organ xenotransplantation." Shenzhen Second People's Hospital, Shenzhen, China.
285. "Current status of islet xenotransplantation." Shenzhen Second People's Hospital, First Affiliated Hospital of Shenzhen University, Shenzhen, China

### **2015**

286. "Pig organ and islet xenotransplantation – how close are we?" Transplant Grand Rounds. Cleveland Clinic, Cleveland, USA.
287. "Progress in pig organ and islet xenotransplantation" MRI Group, Carnegie Mellon University, Pittsburgh, USA.
288. "I didn't know he was a doctor." Forum, First Unitarian Church of Pittsburgh, Pittsburgh, USA.
289. "Cross-species kidney transplantation – history, experimental progress, and clinical potential." Bricknell Lecture, Forum on the History of Urology, American Urological Association, New Orleans, USA.
290. "The potential for pancreas and islet xenotransplantation". Pitt/Children's Joint Pancreatic Research Seminar, Pittsburgh, USA.
292. "Xenotransplantation – how close are we to clinical trials?" Institute of Cellular Therapeutics, Allegheny Health Network, Pittsburgh, USA.
293. "Progress in xenotransplantation." Department of Hepatobiliary Surgery, Xijing Hospital, Fourth Military Medical University, Xi'an, China.
294. "Guidelines on experimental surgical research." Shenzhen Second People's Hospital, First Affiliated Hospital of Shenzhen University, Shenzhen, China.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

295. "Recent advances in kidney, heart, and islet xenotransplantation research." Shenzhen Second People's Hospital, First Affiliated Hospital of Shenzhen University, Shenzhen, China.
296. "Scientific and ethical challenges of xenotransplantation." 2015 Kidney Regeneration and Bioengineering State-of-the Science Summit, Austin, USA.
297. "Xenotransplantation: to pump or to pig?" Keynote lecture, 23<sup>rd</sup> Annual Congress of the International Society of Rotary Blood Pumps, Dubrovnik, Croatia.
298. "Kidney xenotransplantation: the next great medical revolution?" Acute kidney injury symposium, University of Pittsburgh Medical Center, Pittsburgh, USA.
299. "On the horizon: kidney xenotransplantation." Third Annual Transplantation Symposium: Advances in Kidney Transplantation, SUNY Downstate Medical Center, New York, USA.
300. "Discussion and closing remarks" Symposium: Prospects for clinical xenotransplantation. IPTA-IXA-CTS Joint Congress, Melbourne, Australia.
301. "Introduction of IXA Honorary Member Lecture." IPTA-IXA-CTS Joint Congress, Melbourne, Australia.
302. "Recent progress in kidney xenotransplantation." Bijia Mountain Forum. Shenzhen Second People's Hospital, First Affiliated Hospital of Shenzhen University, Shenzhen, China.

### **2016**

303. "Frankenswine or bringing home the bacon: how close are we to clinical trials of Xenotransplantation?" Surgical Trainees Reunion, Addenbrooke's Hospital, Cambridge, UK.
304. "Recent advances in pig organ and islet xenotransplantation" Undergraduate seminar, Carnegie Mellon University, Pittsburgh, USA.
305. "Pig organ/cell xenotransplantation – brief overview." Stem Cell Biology Research Group, Ocata, Marlborough, USA

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

306. "Frankenswine or bringing home the bacon: how close are we to clinical trials of Xenotransplantation?" Transplant Rounds, University of Alabama at Birmingham (UAB), Birmingham, USA.
307. "Pig islet xenotransplantation." Symposium of cell sources for beta-cell replacement. American Diabetes Association 76<sup>th</sup> Scientific Sessions, New Orleans, USA.
308. "Pig islet xenotransplantation." American Diabetes Association News Briefing, American Diabetes Association 76<sup>th</sup> Scientific Sessions, New Orleans, USA.
309. "Topics to consider." US Food and Drug Administration (FDA) / International Xenotransplantation Association (IXA) Discussion, Boston, USA.
310. "Xenotransplantation – the future of heart transplantation?" The New Orleans Conference (practices in cardiac surgery and extracorporeal technologies), New Orleans, USA.
311. "Doctors of another calling – physicians known best for their achievements outside of medicine." The New Orleans Conference (practices in cardiac surgery and extracorporeal technologies), New Orleans, USA.
312. "Frankenswine or bringing home the bacon: how close are we to clinical trials of Xenotransplantation?" Seminar, Department of Biomedical Engineering, Carnegie Mellon University, Pittsburgh, USA
313. "Doctors of another calling – physicians known best for their achievements outside of medicine." Osler Club of London, London, UK
314. "Current status of porcine islet xenotransplantation." 2<sup>nd</sup> Cleveland Clinic Beta Cell Therapy Symposium: Advances in Management of Diabetes, Cleveland, USA.

### **2017**

315. "Frankenswine or bringing home the bacon: how close are we to clinical trials of Xenotransplantation?" Public lecture, Honors College, Birmingham, USA
316. "Progress in pig-to-nonhuman primate solid organ transplantation: how close are we to a clinical trial?" Sichuan Academy of Medical Sciences, Sichuan Provincial People's Hospital, Chengdu, Sichuan, China.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

317. "Witnessing cardiac surgery and transplantation – a historical and philosophical game-changer for medicine?" Geoffrey Flavell Symposium. The Heart, Health and Culture: an exploration in medicine and the humanities. The Worshipful Society of Apothecaries of London, London, UK
318. "Frankenswine or bringing home the bacon: how close are we to clinical Xenotransplantation?" Grand Rounds, Childrens' Hospital of Alabama, Birmingham, USA.
319. "The first heart transplant." (participant) Forum, BBC World Service (August, 2017).
320. "Frankenswine, or bringing home the bacon: how close are we to clinical xenotransplantation? Laman A. Gray, Jr., MD Endowed Lecture, University of Louisville, Louisville, USA.
321. "Recent progress in pig solid organ xenotransplantation." IXA/FDA Workshop, Baltimore, USA.
322. Is sensitization to pig antigens detrimental to subsequent allotransplantation? IXA Congress, Baltimore, USA.
323. "Pioneering advances in pig genetic engineering for xenotransplantation." United Therapeutics-sponsored symposium. IXA Congress, Baltimore, USA.
324. "The history and current status of xenotransplantation research." Association of Primate Veterinarians' Annual Congress, Austin, USA.
325. "If pigs could fly! Current research in pig-to-baboon organ transplantation." Michale E. Keeling Center for Comparative Medicine and Research, University of Texas M. D. Anderson Cancer Center, Bastrop, USA.
326. "Bringing home the bacon: the history and current status of xenotransplantation research." Thomas E. Starzl Transplantation Institute annual retreat, University of Pittsburgh, Pittsburgh, USA
327. "The Chris Barnard I knew". Presentation at a reunion of staff of the Department of Cardiac Surgery of Groote Schuur Hospital, Cape Town, on the occasion of the 50th anniversary of the first human-to-human heart transplant. Cape Town, South Africa.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

328. "Chris Barnard, One Life". Presentation at the congress to commemorate the 50<sup>th</sup> anniversary of the first human-to-human heart transplant, Cape Town, South Africa.

### **2018**

329. "Christiaan Barnard as a writer." Presentation after receiving the John P. McGovern Compleat Physician Award from the Harris County Medical Society and the Houston Academy of Medicine, Houston, USA.

330. "Bringing home the bacon: update on the state of kidney xenotransplantation." 20<sup>th</sup> International Conference on Dialysis: Advances in Kidney Disease 2018, Orlando, USA.

331. "Bringing home the bacon: will pigs solve the organ shortage?" Presentation at a symposium "Innovation in organ transplantation" at the Royal Society of Edingurgh, Edinburgh, UK.

332. "Progress in experimental and clinical islet xenotransplantation." Keynote address to the UAB Comprehensive Diabetes Center 9<sup>th</sup> Annual Research Day, Birmingham, USA.

333. "Topics of current interest in renal xenotransplantation." Presentation at a conference on xenotransplantation organized by the Chinese Medical Association and the Chinese Society of Surgery, Xi'an, China.

334. "Genetically-engineered pigs will be the future source of beta cells." Presentation at a symposium "The future of islet transplant – towards a renewable source of beta cells." 78<sup>th</sup> Scientific Sessions of the American Diabetes Association, Orlando, USA.

335. "Survival of pig organs in nonhuman primates: an update". Presentation at pre-congress symposium on xenotransplantation organized by the International Xenotransplantation Association at the 27<sup>th</sup> Congress of The Transplantation Society, Madrid, Spain.

336. "Transplantation and all that: a brief biographical history of organ transplantation." Presentation at the History of Medicine Intensive Course, 2018, The Worshipful Society of Apothecaries of London, London, UK.

337. "Progress in genetically-engineered pig-to-nonhuman primate models." Presentation to the NIH 12<sup>th</sup> Comparative Medicine Research Resource Directors meeting, Bethesda, USA.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **SEMINARS and INVITED LECTURESHIPS**

338. "Research in genetically-engineered pig-to-nonhuman primate transplantation." Presentation to the NIH Comparative Medicine Challenges in Assessing Nonhuman Primate (NHP) Needs and Resources for Biomedical Research Expert Panel Forum, Bethesda, USA.
339. "Cross-species organ transplantation - the next great medical revolution." Seminar to the Program in Immunology, University of Alabama at Birmingham, Birmingham, USA.
340. "Immunoisolated and 'free' pig islet xenotransplantation' – recent experimental and clinical progress." 3rd Cleveland Clinic Beta Cell Therapy Symposium: Advances in Management of Diabetes, Cleveland, USA.
341. "Heart transplantation: historical review through half a century." Congreso Chileno de Cardiología y Cirugía Cardiovascular. Concepcion, Chile.
342. "Is xenotransplantation the best option for donor scarcity?" Congreso Chileno de Cardiología y Cirugía Cardiovascular. Concepcion, Chile.
343. "The daring young surgeons who pioneered heart surgery." Congreso Chileno de Cardiología y Cirugía Cardiovascular. Concepcion, Chile.
344. "Genetically-engineered pigs for xenotransplantation." Congress of the Argentinian Transplant Society, Buenos Aires, Argentina.
345. "Recent advances and next steps in the clinical transplantation of pig kidneys and hearts." Congress of the Argentinian Transplant Society, Buenos Aires, Argentina.

### **2019**

346. "Xenotransplantation – past, present, and future." Seminar to mark the 50<sup>th</sup> anniversary of the first heart transplant in the UK. History of Medicine Society, Royal Society of Medicine, London, UK.
347. "Kidney xenotransplantation". University of Alabama at Birmingham Conference on 'Pathways to Clinical Xenotransplantation.' Birmingham, USA.
348. "Clinical trial of pig kidney xenotransplantation: experimental background and consideration of selection of patients." Seminar to the Department of Nephrology, University of Alabama at Birmingham, Birmingham, USA

## **PROFESSIONAL ACTIVITIES (Cont)**

### **OTHER RESEARCH RELATED ACTIVITIES**

#### **PATENTS**

1. Method of inhibiting acute complement-mediated cytotoxicity with anti-idiotypic antibodies. Inventors: E. KOREN, D.K.C. COOPER. Applicants: Oklahoma Medical Research Foundation and Baptist Medical Center of Oklahoma, Inc. U.S. Patent No. 5,560,911. Issued October 1, 1996.
2. Methods and compositions for attenuating antibody-mediated xenograft rejection in human recipients. Inventors: A.H. GOOD, D.K.C. COOPER, A.J. MALCOLM. Applicants: Alberta Research Council and Baptist Medical Center of Oklahoma, Inc. U.S. Patent No. 5,651,968. Issued July 29, 1997. PCT International Application Transmittal Letter No. 00475-038 filed August 21, 1992. Israel Patent Application filed August 23, 1992.
3. Genetically engineered animals as organ donors. Inventors: D.K.C. COOPER, E. KOREN. Applicants: Baptist Medical Center of Oklahoma, Inc., and Oklahoma Medical Research Foundation. U.S. Patent Application Serial No. 08/049,817 filed April 20, 1993.
4. Genetically engineered animals expressing the  $\alpha(1,2)$ fucosyltransferase gene for use as organ donors. Inventors: D.K.C. COOPER, E. KOREN, A. SHARMA, J. LOGAN, J.L. PLATT. Applicants: Nextran, Princeton, New Jersey. U.S. Patent Application Serial No. 08/663,589 filed June 12, 1996.
5. Methods and compositions for attenuating antibody-mediated xenograft rejection in human recipients. Inventors: D.K.C. COOPER, A.J. MALCOLM. Applicants: Alberta Research Council and Integris Baptist Medical Center. U.S. Patent No. 5,695,759. Issued December 9, 1997.
6. Anti-idiotypic antibody composition for inhibiting acute complement-mediated cytotoxicity. Inventors: E. KOREN, D.K.C. COOPER. Applicants: Oklahoma Medical Research Foundation and Baptist Medical Center of Oklahoma, Inc. U.S. Patent No. 5,728,812. Issued March 17, 1998.
7. Methods and compositions for attenuating antibody-mediated xenograft rejection in human recipients. Inventors: A.H.GOOD, D.K.C.COOPER, A.J.MALCOLM. Applicants: Alberta Research Council and Integris Baptist Medical Center, Inc. U.S.Patent No. 5,767,093. Issued June 16, 1998.
8. Use of anti-idiotypic antibodies to prevent hyperacute rejection of xenografts. Inventors: E.KOREN, D.K.C.COOPER. Patentees: Oklahoma Medical Research Foundation and Integris Baptist Medical Center, Inc. Australian Patent No. 688806. Accepted October 12, 1994. Issued July 2, 1998.



## PROFESSIONAL ACTIVITIES (Cont)

### OTHER RESEARCH RELATED ACTIVITIES

9. Use of anti-idiotypic antibodies to prevent hyperacute rejection of xenografts. Inventors: E.KOREN, D.K.C.COOPER. Proprietors: Oklahoma Medical Research Foundation and Integris Baptist Medical Center, Inc. European Patent No. EP 0 728 016 B1. Issued February 17, 1999.
10. Compositions for attenuating antibody-mediated xenograft rejection in human recipients. Inventors: A.H.GOOD, D.K.C.COOPER, A.J.MALCOLM. Assignees: Alberta Research Council and Integris Baptist Medical Center, Inc. U.S.Patent No. 5,977,079. Issued November 2, 1999.
11. Use of anti-idiotypic antibodies to prevent hyperacute rejection of xenografts. Inventors: E.KOREN, D.K.C.COOPER. Assignees: Oklahoma Medical Research Foundation and Integris Baptist Medical Center, Inc. Canadian Patent No. 2,172,819. Issued April 4, 2000.
11. Genetically engineered mammals for use as organ donors. Inventors: D.K.C.COOPER, E.KOREN. Assignees: Integris Baptist Medical Center, Inc. and Oklahoma Medical Research Foundation. U.S.Patent No. 6,331,658 B1. Issued December 18, 2001.
12. Modified organs and cell for xenotransplantation. Inventor: A. ZHU. Assignees: RBC Biotechnology, Inc. U.S.Patent No. WO 02/088351 A1. Issued November 2, 2002.

## **PROFESSIONAL ACTIVITIES (Cont)**

### **OTHER RESEARCH RELATED ACTIVITIES (Cont)**

#### **JOURNAL REVIEWER**

American Journal of Transplantation  
Annals of Thoracic Surgery  
Biotechnology and Bioengineering  
Biochimica Biophysica Acta  
Blood  
British Medical Journal  
Cardiovascular Drugs and Therapy  
Cell and Tissue Research  
Clinical Anatomy  
Clinical Pharmacology and Therapeutics  
Clinical Transplantation  
Clinical Transplantation Proceedings Board, Transplantation Proceedings  
Circulation  
Current Opinions in Organ Transplantation (Guest Editor, 2006)  
Expert Opinion on Biological Therapy  
Frontiers in Bioscience  
Graft (Guest Editor, 2001)  
International Journal of Surgery (Editorial Board)  
Investigative Ophthalmology and Visual Science (IOVS)  
IUBMB Life (Journal of the International Union of Biochemistry and Molecular Biology)  
Journal of Cellular and Molecular Medicine  
Journal of Clinical Investigation  
Journal of Heart and Lung Transplantation  
Journal of Immunology  
Journal of Surgery (United Kingdom)  
Journal of Thoracic and Cardiovascular Surgery

## **JOURNAL REVIEWER (Cont)**

Kidney International  
Laboratory Investigation  
Lancet  
Liver Transplantation  
Nature Medicine  
New England Journal of Medicine  
PLoS One  
Proceedings of the National Academy of Science of the USA  
Reproduction Fertility and Development  
Science  
South African Medical Journal  
Surgery  
Transplantation Immunology  
Transplant International.  
Transplantation  
Xenotransplantation  
Xeno

## **EDITORIAL BOARDS:**

|               |  |
|---------------|--|
| 1993-present  | Transplantation  |
| 1994-present  | Clinical Transplantation Proceedings Board, Transplantation Proceedings                                |
| 1994-present  | Xenotransplantation<br>(2001-2007: Editor-in-Chief)  |
| 1995- 2000    | Journal of Heart and Lung Transplantation  |
| 1995-1997     | Xeno   |
| 1996- present | Frontiers in Bioscience  |
| 1998- present | Graft (Guest Editor, 2001)   |
| 2003- present | International Journal of Surgery (United Kingdom)<br>(2015: Guest editor, with B. Ekser and AJ Tector) |

2008-present      Transplants, Research and Risk Management  
2011-present      World Journal of Transplantation (China)

### **GUEST EDITOR**

Graft (2001)  
Current Opinions in Organ Transplantation (2006;11(2): 151-184)  
International Journal of Surgery (United Kingdom) (with B. Ekser and A.J. Tector)

### **EDITOR-IN-CHIEF**

Xenotransplantation, 2001-2007

### **GRANT REVIEWER**

2005 – present      NIH Grant Reviewer  
2004, 2005          University of Pittsburgh, Thomas E. Starzl Transplantation Institute  
2005                  Welcome Foundation, United Kingdom  
2006, 2007          Canada  
2008                  Canada Foundation for Innovation, Montreal, Canada  
2010                  NIH (BAA-NIAID) 'Nonhuman primate major histocompatibility complex  
gene discovery and typing' (Chairman)

### **SERVICE:**

#### **LOCAL, NATIONAL and INTERNATIONAL**

1986-1987          Board of Directors, Southern African Transplantation Society  
1988-1989          Honorary Secretary, Oklahoma Transplantation Society  
1988-1991          Board of Directors, Oklahoma Transplantation Society  
1989-1990          Vice President, Oklahoma Transplantation Society

- 1989-1994 Board of Directors, Oklahoma Organ Sharing Network, Oklahoma
- 1989-1991 Communications Committee, United Network for Organ Sharing, USA
- 1990-1991 President, Oklahoma Transplantation Society
- 1991-1992 Member, Program Committee, International Society for Heart & Lung Transplantation
- 1991-1993 Thoracic Organ Committee, United Network for Organ Sharing, USA
- 1991-1994 Program & Publications Committee, American Society of Transplant Surgeons
- 1991 National Heart Lung & Blood Institute Workshop (National Institutes of Health, Bethesda, Maryland-- Biology of Lung Preservation for Transplantation)
- 1992 Member, Twenty-fourth Bethesda Conference on Cardiac Transplantation
- 1993-1994 Member, Program Committee, International Society for Heart & Lung Transplantation
- 1994-1995 Scientific Advisory Board, and Chairman, Clinical Xenotransplantation Advisory Board, Alexion Pharmaceuticals, Inc., New Haven, USA
- 1994-1997 Secretary/Treasurer & Member, Board of Directors, International Society for Heart & Lung Transplantation
- 1994-1997 Thoracic Organ Transplantation Committee, American Society of Transplant Surgeons
- 1995 Invited Participant, Institute of Medicine, National Academy of Sciences, Workshop - Xenograft Transplantation: Science, Ethics, and Public Policy, Bethesda, USA.
- 1995-1998 Scientific Advisory Board, Bio-Preserve Medical Corporation, Redmond, USA.
- 1996-1999 International Clinical Xenotransplantation Scientific Advisory Board, Novartis Pharmaceutical Corporation, East Hanover, USA
- 1997-1999 Xenotransplantation Safety Advisory Board, Novartis Pharmaceutical Corporation, East Hanover, USA

- 1998-1999 Founding Secretary/Treasurer, Council, International Xenotransplantation Association
- 1999-2000 Chair, Xenotransplantation Advisory Committee, International Society for Heart & Lung Transplantation
- 1999-2001 President, International Xenotransplantation Association
- 1999 Invited Participant, FDA Xenotransplantation Subcommittee Meeting, Bethesda, USA (Report of the Food and Drug Administration Subcommittee on Xenotransplantation: meeting of 3 and 4 June, 1999, Center for Biologics Evaluation and Research. Xenotransplantation 6, 232-237, 1999)
- 1999 Xenotransplantation Advisory Committee of the International Society for Heart and Lung Transplantation (Co-chair). (Report: *The present status of xenotransplantation and its potential role in the treatment of end-stage cardiac and pulmonary diseases*. J. Heart Lung Transplant. 19, 1125-1165, 2000.)
- 2001 Historian, International Xenotransplantation Association
- 2001, 2002, 2004 Invited participant, US Department of Health and Human Services Secretary's Advisory Committee on Xenotransplantation, Bethesda, USA
- 2002 XIX International Congress Scientific Advisory Committee, Transplantation Society
- 2003-2006 Awards Committee, American Society of Transplant Surgeons
- 2007 Abstract Reviewer, CTS-IPITA-IXA Congress, 2007
- 2008 Abstract Reviewer, International Society for Heart and Lung Transplantation.
- 2008 Abstract Reviewer, Transplantation Society
- 2008 Abstract Reviewer, American Transplant Congress
- 2008 Co-Chairman, Break-out Session, WHO Global Consultation on Regulatory Requirements for Xenotransplantation Clinical Trials, Changsha, China, November 19-21.
- 2009 Abstract Reviewer, American Transplant Congress

## **UNIVERSITY and MEDICAL SCHOOL:**

- 1972-1980 Member, Governing Body, Magdalene College, Cambridge, United Kingdom
- 2004,2005 Reviewer, Starzl Transplantation Institute Research Fellowship Awards, University of Pittsburgh, Department of Surgery, and Starzl Transplantation Institute, Pittsburgh, USA.
- 1981-1987 Department of Surgery Management Committee, University of Cape Town, Cape Town, South Africa
- 1993-1995 Department of Transplantation Management Committee, Baptist Medical Center, Oklahoma City, USA
- 1997-1999 Committee on Research - Subcommittee on Research Animal Care, Massachusetts General Hospital, Boston, USA
- 1999-2004 Harvard University Committee on Microbiological Safety and Regulation of Hazardous Biological Agents – Xenotransplantation Advisory Subcommittee
- 2004-date Thomas E. Starzl Transplantation Institute, Protocol Review Committee and Data Safety Monitoring Board, University of Pittsburgh Medical Center, Pittsburgh, USA
- 2005-date Member, Graduate Program Faculty, Immunology, University of Pittsburgh School of Medicine, Pittsburgh, USA
- 2005-date Member, Executive Committee, STI Research, Thomas E. Starzl Transplantation Institute, University of Pittsburgh Medical Center, Pittsburgh, USA
- 2006 Interviewer, Medical Scientist Training Program, University of Pittsburgh, Pittsburgh, USA
- 2007-2012 Member, PhD Thesis Committee (Azadeh Hajy Alikhani) University of Pittsburgh, Pittsburgh, USA
- 2014 Member, Research Assessment Advisory Committee, xenotransplantation research, University of Indiana, Indianapolis, IA, USA

## EXTRACURRICULAR ACTIVITIES

|              |   |
|--------------|---|
| 1956         | Second Rugby Football XV, Beckenham Grammar School  |
| 1957         | First Rugby Football XV, Beckenham Grammar School   |
| 1960-63      | First VIII, Guy's Hospital Boat Club<br>1961-62: Honorary Secretary<br>1962-63: Captain<br>1963: Awarded a Guy's Hospital Blue  |
| 1957-63      | Guy's Hospital Debating Society<br>1960-61: Honorary Secretary<br>1961-62: President  |
| 1964, 65     | Residents' Play, Guy's Hospital, London (performer)   |
| 1967-68      | Second VIII, Thames Rowing Club   |
| 1969         | Second VIII, University of London Boat Club (Awarded a Team Purple)<br>(ULBC 1 <sup>st</sup> VIII was the 1968 British Olympic VIII, and 6 of them represented Great Britain in international events in 1969. Also in 1969, the 1 <sup>st</sup> VIII beat both Oxford and Cambridge Universities) |
| 1969         | Welsh National Rowing Team, Coxed IV Event (Winners),<br>United Kingdom Home Countries Rowing Championships   |
| 1971         | Residents' Revue, Addenbrooke's Hospital, Cambridge (writer,<br>performer)  |
| 1985         | Hospital Revue, Groote Schuur Hospital, Cape Town (writer, performer)   |
| 1989-95      | Member, English-Speaking Union, Oklahoma City<br>Speaker at Oklahoma City and Tulsa Branches  |
| 2001-03      | Member, English-Speaking Union, Boston  |
| 2002-04      | Member, British Expats in Life Sciences, New England  |
| 2008-present | Member, Medical Circle, King's College London (donate UK£1,000<br>annually)   |
| 2010-present | Member, Principal's Circle, King's College London (donate UK£1,000<br>annually)   |



|              |  |
|--------------|--|
| 2010-present | Member, The Athenaeum Club, London.  |
| 2013-present | Member, Osler Club of London   |
| 2014-present | Member, University of London Boat Club Foundation (donate UK£250 + US\$250 annually)       |
| 2015.        | Kings College London Boat Club (KCLBC) named men's racing shell VIII 'David K. C. Cooper'. |
| 2018         | Master's Guild, Magdalene College, Cambridge   |

## Philanthropy

2000: Donation (UK£37,000) to the Nelson Mandela Scholarships, Magdalene College Cambridge, UK. (Further donation of US\$10,000)

2000: Donation (UK£10,000) to Langley Park School for Boys, Beckenham, Kent, UK, for establish a center for excellence in mathematics.

2006: Donation (UK£7,500) to Chislehurst and Sidcup Grammar School for Girl's in Kent, UK, to establish a Gwyneth Cooper Prize in foreign languages.

2010: Donation (UK£10,000) to Langley Park School for Boys, Beckenham, Kent, UK, to establish a David Cooper Prize for prospective medical students.

2012: Donation (US\$50,000) to King's College London Boat Club (KCLBC) to support the David Cooper Scholarships.

2013: Donation (US\$50,000) to Guy's Hospital Rugby Football Club (GHRFC) at King's College London to support an Emeka Ekwuatu Scholarship.

2014: Further donation (US\$50,000) to King's College London Boat Club (KCLBC) to support the David Cooper Scholarships.

2014-present: Annual donations to the University of London Boat Club

2015: Further donation (US\$50,000) to King's College London Boat Club (KCLBC) to support the David Cooper Scholarships.

2016: Further donation (US\$50,000) to King's College London Boat Club (KCLBC) to support the David Cooper Scholarships.

2016-present: Member of the 1209 Society, University of Cambridge (annual

donations).

2017: Donation (US\$50,000) to Magdalene College, Cambridge, to support the Nelson Mandela scholarships (for South African students).

2018: Further donation (US\$50,000) to Magdalene College, Cambridge, to support the Nelson Mandela scholarships (for South African students).