

**Address:**

David W. Scharp, MD  
 Prodo Laboratories, Inc  
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**Education:**

<u>Institution &amp; Location</u>	<u>Degree</u>	<u>Years</u>	<u>Course of Study</u>
University of Missouri, Columbia, MO	-	1963-1966	Chemistry & Biology
Washington University School of Medicine St. Louis, MO	MD	1966-1970	Medicine
Barnes Hospital Surgery Training St. Louis, MO	-	1970-1972	Surgery
WUSM Post Doc - Paul Lacy, MD, PhD St. Louis, MO	-	1972-1974	Research
Barnes Hospital Surgery Training	-	1974-1976	Surgery

**Academic Appointments:**

- 1976 – Assistant Professor of Surgery, Washington University School of Medicine, St. Louis, MO
- 1983 – Associate Professor of Surgery, Washington University School of Medicine, St. Louis, MO
- 1991 - Professor of Surgery, Washington University School of Medicine, St. Louis, MO

**Certifications:**

- 1979 - American Board of Surgery
- 1989 - Recertification: American Board of Surgery

**Corporate Relationships:**

- 1982-1986 – Contractual Research – “Electrophoretic Separation of Pancreatic Cells in Space”, McDonnell Douglas Corp, St Louis, MO
- 1983 – STS 8 Challenger Space Shuttle flight for electrophoretic separation of pancreatic islet and acinar cells at zero gravity during Shuttle flight experiment
- 1986-1994 - National Surgical Advisor - Digestive Disease Center of Excellence, The Humana Corporation
- 1989 – Founding Scientist – Cytotherapeutics, Inc, Providence, Rhode Island
- 1989-1993 – Founding Scientific Advisory Board – Cytotherapeutics, Inc
- 1989-1993 – Contractual Research – “Encapsulated Islets using Hollow Fibers”, Cytotherapeutics, Inc
- 1993 – FDA Approved Investigator IND clinical trial for encapsulated human islets into non-diabetic, Type 1 diabetic, and Type 2 Diabetic recipients for Cytotherapeutics, Providence, RI
- 1999 – Co-Founder- Novocell, Inc, Irvine, CA
- 2005 – FDA Approved Phase I/II Clinical Trial of encapsulated human islets into the subcutaneous site of patients with Type 1 diabetes for Novocell, Inc.
- 2006 – Founder – Prodo Laboratories, Inc, Irvine, CA
- 2006 – Founder – Invenio Institute, Irvine, CA
- 2007 to Present - Consultant – Beta O<sub>2</sub>, Tel Aviv, Israel
- 2008 to Present – Scientific Advisory Board – Pan-Medics, Costa Mesa, CA

- 2008 – Founder – The Scharp-Lacy Research Institute, Irvine, CA – formerly Invenio Institute
- 2008 – 2009 – Scientific Advisory Board – Micro-Islet, Inc, San Diego, CA
- 2010 – Founder – Scharp Technologies
- 2010 to Present - Acting Chief Medical Officer – Pan-Medics, Costa Mesa, CA
- 2011 - Consultant – Betalogics, Inc, Division of Johnson & Johnson

**Corporate Appointments:**

- 1994-1999 – Executive Vice President, Chief Scientific Officer, Chief Medical Officer - Neocrin Co., Irvine, CA
- 1999 – 2004 - Executive Vice President, Chief Scientific Officer, Chief Medical Officer, Novocell, Inc., Irvine, CA
- 2004 – 2006 - Executive Vice President, Chief Scientific Officer, Chief Medical Officer, Novocell, Inc., Irvine, CA – Post Merger with Cythera, Inc
- 2006 to Present – Chief Executive Officer & President – Prodo Laboratories, Inc, Irvine, CA
- 2006 – 2008 – Chief Executive Officer & President – Invenio Institute, Irvine, Ca
- 2008 to Present – Chief Executive Officer & President – The Scharp-Lacy Research Institute, Irvine, CA (formerly Invenio Institute)
- 2010 to Present – Chairman of the Board – Scharp Technologies, Irvine, CA

**Honors & Awards:**

- 1977-1982 – Recipient, NIH Research Career Development Award
- 1980-1995 – Site Visit Team Member, NIDDK of the NIH
- 1982-1994 - Continuous NIH Grant Support through Series of NIH Grant Awards
- 1982 – Elected as Fellow American College of Surgery
- 1985-1989 – Member, NIH Surgery, Anesthesiology, and Trauma (SAT) Study Section
- 1985-1989 - Reserve Member, NIH SAT Study Section
- 1988 - Elected Faculty Member, Alpha Omega Alpha - Washington University School of Medicine Chapter
- 1990 - Outstanding Professional Employee, Federal Employee of the Year Award, St. Louis Veterans Hospital
- 1990 - The Huddinge Hospital Transplant Lectureship - Annual Meeting of the Swedish Society for Medical Science, Stockholm, Sweden
- 1992-1994 – Member, Juvenile Diabetes Research Foundation - Grant Reviewer
- 1992 - Council Member - Cell Transplantation Society
- 1993 - Council Member - International Pancreas & Islet Transplantation Association
- 1994 - Elected to Membership of the American Surgical Society
- 2010 - David Scharp, PI, *Human Islets for Research & Distribution*, Prodo Laboratories, Inc. Award #20-5534494, National Institutes of Health & Internal Revenue Service, Qualifying Therapeutic Discovery Grant
- 2010 - David Scharp, PI, *Human Islet Expansion*, Prodo Laboratories, Inc. Award #20-5534495, National Institutes of Health & Internal Revenue Service, Qualifying Therapeutic Discovery Grant

**Memberships in Societies (Former & Current):**

- American College of Surgeons
- American Diabetes Association
- American Federation of Clinical Research
- American Pancreatic Association
- American Society for Artificial Internal Organs

American Surgical Association  
Association for Academic Surgery  
Society of University Surgeons  
Tissue Culture Association  
American Society of Transplant Surgeons  
The Cell Transplantation Society  
International Pancreas & Islet Transplantation Association

**Patents:**

**Issued:**

- 1989 - USPTO #4,868,121 "Islet Isolation Process" Scharp, D.W., Lacy, P.E., Finke, E.H., Poteat, J.
- 1992 – USPTO #5,079,160 (1992) "Method to Isolate Clusters of Cell Sub-Types from Organs" Lacy, P.E., Scharp, D.W., Ricordi, C.
- 1994 - USPTO #5,322,790 (1994) "Islet Isolation Process" Scharp, D.W., Lacy, P.E., Finke, E.H., Poteat, T.J.
- 1998 – USPTO #5,798,113 "Implantable Biocompatible Immunoisulatory Vehicle for Delivery of Selected Therapeutic Products" Dionne, K.E., Emerich, D.F., Hoffman, D., Sanberg, P.R., Christenson, L., Hegre, O.D., Scharp, D.W., Lacy, P.E., Aebischer, P., Vasconcellos, A.V., Lysaght, M.J., Gentile, F.T.
- 1998 – USPTO #5,800,828 "Implantable Biocompatible Immunoisulatory Vehicle for Delivery of Selected Therapeutic Products" Dionne, K.E., Emerich, D.F., Hoffman, D., Sanberg, P.R., Christenson, L., Hegre, O.D., Scharp, D.W., Lacy, P.E., Aebischer, P., Vasconcellos, A.V., Lysaght, M.J., Gentile, F.T.
- 1998 – USPTO #5,800,829 "Methods for Coextruding Immunoisulatory Implantable Vehicles with a Biocompatible Jacket and a Biocompatible Matrix Core" Dionne, K.E., Emerich, D.F., Hoffman, D., Sanberg, P.R., Christenson, L., Hegre, O.D., Scharp, D.W., Lacy, P.E., Aebischer, P., Vasconcellos, A.V., Lysaght, M.J., Gentile, F.T.
- 1999 – USPTO #5,869,077 "Methods for Treating Diabetes by Delivering Insulin from Biocompatible Cell Containing Devices" Dionne, K.E., Emerich, D.F., Hoffman, D., Sanberg, P.R., Christenson, L., Hegre, O.D., Scharp, D.W., Lacy, P.E., Aebischer, P., Vasconcellos, A.V., Lysaght, M.J., Gentile, F.T.
- 1999 - USPTO #5,871,767 "Methods for Treatment or Prevention of Neurodegenerative Conditions Using Immunoisulatory Implantable Vehicles with a Biocompatible Jacket and a Biocompatible Matrix Core" Dionne, K.E., Emerich, D.F., Hoffman, D., Sanberg, P.R., Christenson, L., Hegre, O.D., Scharp, D.W., Lacy, P.E., Aebischer, P., Vasconcellos, A.V., Lysaght, M.J., Gentile, F.T.
- 1999 - USPTO #5,874,099 "Methods for Making Immunoisulatory Implantable Vehicles with a Biocompatible Jacket and a Biocompatible Matrix Core" Dionne, K.E., Emerich, D.F., Hoffman, D., Sanberg, P.R., Christenson, L., Hegre, O.D.,

Scharp, D.W., Lacy, P.E., Aebischer, P., Vasconcellos, A.V., Lysaght, M.J., Gentile, F.T.

1999 – USPTO #5,916,554 “Use of Pouch for Implantation of Living Cells”  
Dionne, K.E., Scharp, D.W.

2000 – USPTO #6,083,523 “Implantable biocompatible immunoisolatory vehicle for the delivery of selected therapeutic products” Dionne, K, Emerich, D, Hoffman, D, Sanberg, P, Christenson, L, Hegre, O, Scharp, D, Lacy, P, Aebischer, P, Vasconcello, A, Lysaght, M, Gentile, F.

2001 – USPTO #6,322,804 “Implantable biocompatible immunoisolatory vehicle for the delivery of selected therapeutic products” Dionne, K, Emerich, D, Hoffman, D, Sanberg, P, Christenson, L, Hegre, O, Scharp, D, Lacy, P, Aebischer, P, Vasconcello, A, Lysaght, M, Gentile, F.

2005 – USPTO #6,960,351 “Implantable biocompatible immunoisolatory vehicle for delivery of selected therapeutic products” Dionne, K, Emerich, D, Hoffman, D, Sanberg, P, Christenson, L, Hegre, O, Scharp, D, Lacy, P, Aebischer, P, Vasconcello, A, Lysaght, M, Gentile, F.

2008 - USPTO #7,427,415 “Implantation of Encapsulated Biological Materials for Treating Diseases” Scharp, DW, Latta, P, Yue, C, Yu, X, Hubbell, J.

**Applications :**

2004 – USPTO App #20040132183 Scharp et al Methods and compositions for expanding and differentiating insulin-producing cells

2004 - USPTO App #20040259244 Scharp et al Methods, compositions, and growth and differentiation factors for insulin-producing cells

2006 – USPTO App #20050180957 Scharp et al Method of using fibrin-bound angiogenic factors to stimulate vascularization of transplant site of encapsulated cells

2006 – USPTO App #20060122104 Presnell et al Methods for in vitro expansion and transdifferentiation of human pancreatic acinar cells into insulin-producing cells

2006 – USPTO App #20060275900 Presnell et al Methods for in vitro expansion and transdifferentiation of human pancreatic acinar cells into insulin-producing cells

**Publications :**

**Peer Reviewed Articles :**

1. Merrick, A.W., Scharp, D.W. - Electroencephalography of resting behavior in cattle, with observations on the question of sleep, Am. J. Vet. Res., 32:1893-1897, 1971
2. Knight, M.J., Scharp, D.W., Kemp, C.B., Ballinger, W.F., Lacy, P.E. - Effects of cold storage on the function of isolated pancreatic islets, Cryobiology, 10:89-90, 1973
3. Kemp, C.B., Scharp, D.W., Knight, M.J., Ballinger, W.F., Lacy, P.E. - Importance of implantation site of pancreatic islet isografts in treatment of experimental diabetes, Surgical Forum 24:297-299, 1973

4. Kemp, C.B., Knight, M.J., Scharp, D.W., Lacy, P.E., Ballinger, W.F. - Transplantation of isolated pancreatic islets into the portal vein of diabetic rats, *Nature* 244:447, 1973
5. Scharp, D.W., Kemp, C.B., Knight, M.J., Ballinger, W.F., Lacy, P.E. - The use of Ficoll in the preparation of viable islets of Langerhans from the rat pancreas, *Transplantation* 16:686-689
6. Kemp, C.B., Knight, M.J., Scharp, D.W., Ballinger, W.F., Lacy, P.E. - Effect of transplantation site on the results of pancreatic islet isografts in diabetic rats, *Diabetologia* 9:489-491, 1973
7. Scharp, D.W., Murphy, J.J., Newton, W.T., Ballinger, W.F., Lacy, P.E. - Transplantation of islets of Langerhans in diabetic Rhesus monkeys, *Surgery* 77:100-105, 1975
8. Scharp, D.W., Murphy, J.J., Newton, W.T., Ballinger, W.F., Lacy, P.E. - Application of an improved isolation technique for islet transplantation in primates and rats, *Transplant. Proc.* 6(1):739-741, 1975
9. Feldman, S., Hirshberg, G., Dodi, G., Raizman, M., Scharp, D., Ballinger, W., Lacy, P.E. - Intrasplenic islet isografts, *Surgery* 82:386-394, 1977
10. Karl, R.C., Scharp, D.W., Ballinger, W.F., Lacy, P.E. - Transplantation of insulin-secreting tissues, *J British Society Gastroenterology - GUT* 18:1062-1072, 1977
11. Griffith, R.C., Scharp, D.W., Hartman, B.K., Ballinger, W.F., Lacy, P.E. - A morphologic study of intrahepatic portal vein islet isografts, *Diabetes* 26:201-214, 1977
12. Feldman, S., Scharp, D., Hirshberg, G., Dodi, G., Ballinger, W., Lacy, P.E. - Streptozotocin-induced liver tumors, *Transplantation* 24:152-154, 1977
13. Feldman, S., Dodi, G., Haid, K., Scharp, D., Ballinger, W., Lacy, P.E. - Artificial hybrid pancreas, *Surgical Forum* 28:439-441, 1977
14. Scharp, D.W., Merrell, R.C., Feldman, S.D., Downing, R., Lacy P.E., Ballinger, W. - The use of gyrotational culture for the preservation of isolated islets, *Surgical Forum* 29:100-102, 1978
15. Krupin, T., Waltman, S.R., Scharp, D.W., Oestrich, G., Feldman, S.D., Becker, D., Ballinger, W.F., Lacy, P.E. - Ocular fluorophotometry in experimental diabetes mellitus: The effect of pancreatic islet isografts, *Investigative Ophthalmology & Visual Science* 18:1185-190, 1979
16. Downing, R., Scharp, D.W., Ballinger, W.F. - An improved technique for the isolation and identification of mammalian islets of Langerhans, *Transplantation* 29:79-83, 1980
17. Lacy, P.E., Davie, J.M., Finke, E.H., Scharp, D.W. - Prolongation of islet allograft survival, *Transplantation* 27:171-174, 1979
18. Scharp, D.W., Downing, R., Merrell, R.C., Grieder, M. - Isolating the elusive islet, *Diabetes* 29(1):19-30, 1980
19. Downing, R., Scharp, D.W., Merrell, R.C., Grieder, M., Ballinger, W.F. - Venous versus ductal distension of the dog pancreas for isolation of islets, *Surgical Forum* 30:422-424, 1979
20. Merrell, R.C., Scharp, D.W., Gingerich, R., Feldmeier, M.M., Grieder, M., Downing, R. - New approaches to the separation of islet cells, *Surgical Forum* 30:303-305, 1979
21. Feldman, S.D., Scharp, D.W., Lacy, P.E., Ballinger, W.F. - Fetal pancreas isografts, cultured and uncultured, to reverse streptozotocin induced diabetes mellitus, *J. Surgical Research* 29:309-318, 1980

22. Grieder, M.H., Gingerich, R.L., Scharp, D.W. - In Vitro studies of canine pseudo-islets. UCLA Symposium - Cellular Basis of Chemical Messengers in the Digestive System", Los Angeles, January 16-18, 1980
23. Silberberg, R., Scharp, D.W., Lesker, P.A. - Biochemical studies of bone from diabetic rats and rats bearing transplanted pancreatic islets, *Experimental Cell Biology* 49:61-67, 1981
24. Rajotte, R.V., Scharp, D.W., Downing, R., Preston, R., Molnar, G.D., Ballinger, W.F. - Pancreatic islet banking: the transplantation of frozen-thawed rat islets transported between Centers, *Cryobiology* 18:357-369, 1981
25. Britt, L.D., Scharp, D.W. - Formation of pseudo-islets from neonatal pig pancreas, *Surgical Forum* 31:354-356, 1980
26. Britt, L.D., Stojeba, P.C., Scharp, C.R., Grieder, M.H., Scharp, D.W. - Neonatal pig pseudo-islets: A product of selective aggregation, *Diabetes* 30:580-583, 1981
27. Britt, L.D., Scharp, D.W., Lacy, P.E., Slavin, S. - Transplantation of islet cells across major histocompatibility barriers after total lymphoid irradiation and infusion of allogeneic bone marrow cells, *Diabetes* 31:36-38, 1982
28. Bergen, J., Mason, N.S., Scharp, D.W., Sparks, R.E. - Insulin inhibition of islets in transplantation chambers, *Artificial Organs* 5:787-791, 1981
29. Paquette, T.L., Gingerich, R., Scharp, D.W. - Altered amidation of pancreatic polypeptide in culture, *Biochemistry* 20:7403-7408, 1981
30. Schmidt, R.E., Scharp, D.W. - Axonal dystrophy in experimental diabetic autonomic neuropathy, *Diabetes* 31:761-770, 1982
31. Yasunami, Y., Lacy, P.E., Scharp, D.W., Britt, L.D. - Isolation and transplantation of islet cells from the neonatal pig pancreas, *Surgical Forum* 33, 359-361, 1982
32. Gingerich, R.L., Scharp, D.W., Grieder, M.H., Dye, E.S., Mousel, K.A. - A new in vitro model for studies of pancreatic polypeptide secretion and biochemistry, *Regulatory Peptides* 5:13-25, 1982
33. Scharp, D.W., Long, J.A. - Studies of islet isolation and transplantation, *Cryobiology* 20:129-137, 1983
34. Long, J.A., Britt, L.D., Olack, B.J., Scharp, D.W. - Autotransplantation of isolated canine islets, *Transplant Proc.* 15:1332-1338, 1983
35. Schmidt, R.E., Santiago, B.P., Olack, B.J., Scharp, D.W. - The effect of pancreatic islet transplantation and insulin therapy on experimental diabetic autonomic neuropathy, *Diabetes* 32:532-540, 1983
36. Giddings, S.J., Rotwein, P., Chirgwin, J.M., Scharp, D.W., Permutt, M.A. - Analysis of insulin gene expression in human pancreas, *Diabetes* 32:777-780, 1983
37. Scharp, D.W. - Isolation and transplantation of islet tissue, *World J. of Surgery* 8:143-151, 1984
38. Scharp, D.W., Mason, N.S., Sparks, R.E. - Islet immunoisolation: the use of hybrid artificial organs to prevent islet tissue rejection, *World J. of Surgery* 8:221-229, 1984
39. Scharp, D.W. - Clinical feasibility of islet transplantation, *Transplant Proc.* 16(3):820-825, 1984
40. Heiken, J.P., Balfe, D.M., Picus, D., Scharp, D.W. - Radical pancreatectomy: Postoperative evaluation by CT, *Radiology* 153:211-215, 1984

41. Martin, K.W., Morian, J.P., Jr., Lee, J.K.T., Scharp, D.W. - Demonstration of splenic artery pseudoaneurysm by Magnetic Resonance Imaging, *J. of Computer Assisted Tomography* 9(1):190-192, 1985
42. Downing, R., Morrissey, S., Kiske, D., Scharp, D.W. - Does the purity of intraportal islet isografts affect their endocrine function?, *J. Surg. Research* 41(1):41-46, 1986
43. Scharp, D.W., Lacy, P.E., Alderson, D., Kneteman, N.M. - The procurement and distribution of cadaver human pancreas for islet isolation and transplantation. *The Use of Human Tissues and Organs for Research and Transplant: Proceedings of the Second International Conference: National Diabetes Research Interchange April 1986*:61-70
44. Scharp, D.W., Alderson, D., Kneteman, N.M. - Optimization of islet preparations for clinical transplantation. *Transplant Proc.* 18(6):1814-1816, 1986
45. Kneteman, N.M., Alderson, D., Scharp, D.W. - Cyclosporine A immunosuppression of allotransplanted canine pancreatic islets, *Transplant. Proc.*, 19(1):950-951, 1987
46. Alderson, D., Kneteman, N.M., Scharp, D.W. - The isolation of purified human islets of Langerhans, *Transplant Proc.* 19(1):916-917, 1987
47. Hymer, W.C., Scharp, D.W., et al. - Continuous flow electrophoretic separation of proteins and cells from mammalian tissues, *Cell Biophysics* 10:61-85, 1987
48. Scharp, D.W., Alderson, D., Kneteman, N.M. - The effect of immunosuppression on islet transplant function in the dog, *Transplant Proc.* 19(1) 952-953, 1987
49. Alderson, D., Kneteman, N.M., Olack, B.J., Scharp, D.W. - Isolation and quantification of canine islet tissue for transplantation, *Transplantation* 43(4):579-581, 1987
50. Kneteman, N.M., Alderson, D., Scharp, D.W. - The isolation and purification of human pancreatic islets, *Transplant Proc.* 19(4):3469-3470, 1987
51. Scharp, D.W., Lacy, P.E., Finke, E., Olack, B.J. - Low-temperature culture of human islets isolated by the distention method and purified with Ficoll or Percoll gradients, *Surgery* 102:869-879, 1987
52. Kneteman, N.M., Alderson, D., Scharp, D.W. - Long-term normoglycemia in pancreatectomized dogs following pancreatic islet allotransplantation and cyclosporine immunosuppression, *Transplantation* 44(5):595-599, 1987
53. Fonseca, P., Scharp, D.W. - Use of oxygen free radical scavengers to increase the yields of isolated rat islets after pancreatic warm ischemia, *Surgical Forum* 38:371-373, 1987
54. Ricordi, C., Lacy, P.E., Finke, E.H., Olack, B.J., Scharp, D.W. - Automated method for isolation of human pancreatic islets, *Diabetes* 37:413-420, 1988
55. Turk, J., Hughes, J.H., Easom, R.A., Wolf, B.A., Scharp, D.W., Lacy, P.E., McDaniel, M.L. - Arachidonic acid metabolism and insulin secretion by isolated human pancreatic islets, *Diabetes* 37:992-996, 1988
56. Corlett, M.P., Alderson, D., Kneteman, N.M., Scharp, D.W. - Long-term normoglycemia in canine islet autografts, *Transplant Proc* 20 (Suppl. 1):896-897, 1988
57. Corlett, M.P., Scharp, D.W., Lacy, P.E. - Microbial contamination risks in human islet isolation, *Transplant Proc* 20 (Suppl. 1):894-895, 1988

58. Ricordi, C., Scharp, D.W., Lacy, P.E. - Reversal of diabetes in nude mice after transplantation of fresh and 7 day cultured (24°C) human pancreatic islets, *Transplantation* 45:994-996, 1988
59. Ricordi, C., Scharp, D.W., Lacy, P.E. - Mass isolation of human pancreatic islets for transplantation. Proceedings from XXVI World Congress of the International College of Surgeons, Milan, Italy, July 3-9, 1988, Monduzzi Editore S.p.A.
60. Corlett, M.P., Scharp, D.W. - The effect of pancreatic warm ischemia on islet isolation in rats and dogs, *J. Surg. Research*, 45:531-536, 1988
61. Ricordi, C., Kneteman, N.M., Scharp, D.W., Lacy, P.E. - Transplantation of cryopreserved human pancreatic islets into diabetic nude mice, *World J. Surgery* 12:861-865, 1988
62. Misler, S., Gee, W.M., Gillis, K.D., Scharp, D.W., Falke, L.C. - A metabolite-regulated ATP-sensitive K<sup>+</sup> channel in human pancreatic islet cells, *Diabetes* 38:422-427, 1989
63. Scharp, D.W., Lacy, P.E., Ricordi, C., Boyle, P., Santiago, J., Cryer, P., Gingerich, R., Jaffe, A., Anderson, C.B., Flye, M.W. - Human islet transplantation in patients with Type 1 diabetes, *Transplant Proc* 21 (No. 1):2744-2745, February 1989
64. Scharp, D.W. - Islet Transplantation, *Diabetes* 38: (Suppl. 1):323-325, 1989
65. Ricordi, C., Lacy, P.E., Scharp, D.W. - Automated islet isolation from human pancreas, *Diabetes* 38 (Suppl. 1):140-142, 1989
66. Kneteman, N.M., Alderson, D., Scharp, D.W., Lacy, P.E. - Prolonged cyropreservation of purified human pancreatic islets, *Diabetes* 38:176-178, 1989
67. Kneteman, N.M., Alderson, D., Scharp, D.W., Lacy, P.E. - Long-term cryogenic storage of purified adult human islets of Langerhans, *Diabetes* 38:386-396, 1989
68. Brelje, T.C., Scharp, D.W., Sorenson, R.L. - Three-dimensional imaging of intact, isolated islets of Langerhans using Confocal microscopy, *Diabetes* 38:808-814, 1989
69. Schmidt, R.E., Plurad, S.B., Olack, B.J., Scharp, D.W. - The effect of pancreatic islet transplantation and insulin therapy on neuroaxonal dystrophy in sympathetic autonomic ganglia of chronic Streptozotocin diabetic rats, *Brian Research* 497:393-398, 1989
70. Callery, M.P., Ricordi, C., Scharp, D.W., Kamei, T., Swanson, C.J., Lacy, P.E., Flye, M.W. - Hepatic insufficiency following portacaval shunting is prevented by prior intraportal pancreatic islet autotransplantation. *Surgery* 106:257-266, 1989
71. Dotta, F., Colman, P.G., Nayak, R.C., Lombardi, D., Scharp, D.W., Andreani, D., Pontieri, G.M., di Mario, U., Lenti, L., Eisenbarth, G.S. - Ganglioside expression in human pancreatic islets, *Diabetes* 38:1478-1483, 1989
72. Permutt, M.A., Koranyi, L., Keller, K., Lacy, P.E., Scharp, D.W., Mueckler, M. - Cloning and functional expression of a human pancreatic islet glucose-transporter cDNA, *Proc Natl Acad Sci USA* 86:8688-8692, 1989
73. Callery, M.P., Kamei, T., Flye, M.W., Davis, C.G., Swanson, C.J., Olack, B.J., Lacy, P.E., Scharp, D.W. - Intrahepatic islet autografts in dogs function despite completely diverting portacaval shunt, *Transplant Proc* 22:767-770, 1990

74. Scharp, D.W., Lacy, P.E., Santiago, J.V., McCullough, C.S., Weide, L.G., Falqui, L., Marchetti, P., Gingerich, R.L., Jaffe, A.S., Cryer, P.E., Anderson, C.B., Flye, M.W. - Insulin independence after islet transplantation into Type 1 diabetic patient, *Diabetes* 39:515-518, 1990
75. Atkinson, M.A., Maclaren, N.K., Riley, W.J., Scharp, D.W., Lacy, P.E. - 64,000 M<sub>r</sub> autoantibodies as predictors of insulin dependent diabetes, *Lancet* 335:1357-1360, 1990
76. Scharp, D.W., Olack, B.J., Swanson, C.J., Marchetti, P. - Normal reproductive function in dogs with islet autograft, *Transplant Proc* 22(5):2403-2404, 1990
77. Chern, H.T., Scharp, D.W. - Viability assessment of cryopreserved canine islets *in vivo*, *Endocrine Surgery* 7(3):355-360, 1990
78. Medoff, G., Sagal, S., Krogstad, D., Peters, M., Hogan, J., Scharp, D. - Clinical Pathology Conference - Abdominal pain, fever, and weight loss in a 61 year-old Arabian Man, *Am J Medicine* 89:83-90, 1990
79. Ricordi, C., Gray, D.W.R., Hering, B.J., et al - Islet isolation assessment in man and large animals, *Acta Diabetol. Lat.* 27:185-195, 1990
80. Atkinson, M.A., Maclaren, N.K., Holmes, L., Scharp, D.W., Lacy, P.E., Riley, W.J. - The natural history and predictive value of M<sub>r</sub> 64,000 autoantibodies for insulin-dependent diabetes mellitus, *J Autoimmunity* 3:41-45, 1990
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