

CHEMICAL HERITAGE FOUNDATION

ROBERT C. DE LISLE

The Pew Scholars Program in the Biomedical Sciences

Transcript of an Interview
Conducted by

Helene L. Cohen

at

The University of Kansas Medical Center
Kansas City, Kansas

on

10-12 April 2000

From the Original Collection of the University of California, Los Angeles

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Marnie Berkowitz, Consultant to the Chemical Heritage Foundation. B.A., Classical Languages and Literatures, University of Minnesota; Ford Foundation Fellowship, Classical Languages and Literatures, University of Chicago.

David J. Caruso, Program Manager, Oral History, Chemical Heritage Foundation. B.A., History of Science, Medicine, and Technology, Johns Hopkins University; PhD., Science and Technology Studies, Cornell University.

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Interviewee agrees to participate in a series of University-conducted tape-recorded interviews, commencing on or about April 10, 2000, and tentatively entitled "Interview with Robert C. De Lisle". This Agreement relates to any and all materials originating from the interviews, namely the tape recordings of the interviews and a written manuscript prepared from the tapes, hereinafter collectively called "the Work."

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University of California, Los Angeles
Box 951575
Los Angeles, California 90095-1575

Attention: Director

If to Interviewee: Robert C. De Lisle
Department of Anatomy and Cell Biology
The University of Kansas
Medical Center
3901 Rainbow Boulevard
Kansas City, Kansas 66160

University and Interviewee have executed this Agreement on the date first written above.

INTERVIEWEE.

THE REGENTS OF THE UNIVERSITY
OF CALIFORNIA

R. C. De Lisle
(Signature)

Dale E. Treleven
(Signature)

Robert C. De Lisle
(Typed Name)

Dale E. Treleven
(Typed Name)

University of Kansas
(Address)

Director, Oral History Program
(Title)

Medical Center

Kansas City, KS 66160

X Date 4-10-00

Date June 2, 2000

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Robert C. De Lisle, Ph.D.

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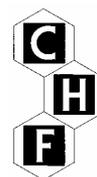
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ROBERT C. DE LISLE

1957 Born in Buffalo, New York on 5 August

Education

1979 B. A., University of Massachusetts-Boston
1984 Ph.D., Case Western Reserve University

Professional Experience

1984-1987 University of California, San Francisco
Postdoctoral Fellow

1988-1990 University of Michigan
Assistant Research Scientist

1990-1996 University of Kansas Medical Center, Department of Anatomy and Cell
Biology
Assistant Professor
1996-present Associate Professor

Honors

1984 Steuer Award, Department of Developmental Genetics and Anatomy,
Case Western Reserve University

1985-1987 Postdoctoral Fellow, Cystic Fibrosis Foundation

1993-1997 Pew Scholar in the Biomedical Sciences

Selected Publications

- De Lisle, R.C. et al., 1984. Isolation of stable pancreatic zymogen granules. *American Journal of Physiology: Gastrointestinal Liver Physiology* 241 :G4 11-18.
- De Lisle, R.C. and U. Hopfer, 1986. Electrolyte transport properties of pancreatic zymogen granules: Implications for pancreatic secretion. *American Journal of Physiology* 250:G489-96.
- De Lisle, R.C. and C.D. Logsdon, 1990. Pancreatic acinar cells in culture: Expression of acinar and ductal antigens in a growth related manner. *European Journal of Cell Biology* 51:64-75.

- Kitagawa, M. et al., 1990. Amylase secretion from streptolysin-O permeabilized pancreatic acini. *American Journal of Physiology. Gastrointestinal Liver Physiology* 259:G157-64.
- Goke, B. et al., 1992. Low molecular mass GTP-binding proteins in subcellular fractions of the pancreas: Regulated phosphoryl G-proteins. *American Journal of Physiology: Cell Physiology* 262 :C493 -500.
- De Lisle, R.C., 1994. Characterization of the major sulfated protein of mouse pancreatic acinar cells: A high molecular weight peripheral membrane glycoprotein of zymogen granules. *Journal of Cell Biochemistry* 56:385-96.
- De Lisle, R.C., 1995. Increase expression of sulfated gp300 and acinar tissue Pathology in pancreas of CFTR (-/-) mice. *American Journal of Physiology. Gastrointestinal Liver Physiology* 268 :G7 17-23.
- De Lisle, R.C. and R. Bansal, 1996. Brefeldin A inhibits the constitutive-like secretion of a sulfated protein in pancreatic acinar cells. *European Journal of Cell Biology* 71:62-71.
- De Lisle, R.C. et al., 1996. Metallothionein is a component of exocrine pancreas secretion: Implications for zinc homeostasis. *American Journal of Physiology. Cell Physiology* 271 :C1 103-10.
- De Lisle, R.C. et al., 1997. MUCLIN expression in the cystic fibrosis transmembrane conductance regulator knockout mouse. *Gastroenterology* 113:521-32.
- De Lisle, R.C. et al., 1998. Developmental expression of a mucinlike glycoprotein (MUCLIN) in pancreas and small intestine of CF mice. *American Journal of Physiology. Gastrointestinal Liver Physiology* 275 :G2 19-27.
- De Lisle, R.C. and D. Ziemer, 2000. Processing of pro-MUCLIN and divergent targeting of its products to zymogen granules and the apical plasma membrane of pancreatic acinar cells. *European Journal of Cell Biology* (in press).

ABSTRACT

Robert C. De Lisle was born in Buffalo, New York, the fourth of seven children. His father was an electrical engineer who holds patents on several of his inventions and who, now that he is retired, is studying cosmology for fun. De Lisle credits his father with influencing him (Robert) to think, as well as to do whatever he (Robert) was interested in. A home filled with growing children becomes crowded, and Buffalo weather is not conducive to outdoor fun, so De Lisle's father built each child a small room in the basement. There Robert built models. When Heathkits became available, De Lisle's father built a color television set and a stereo. Watching and talking with his father aroused and reinforced Robert's interest in science, in how things are put together and how they work. Robert was always interested in and did well in science and math. He considers high school mostly a waste of time, but he had an inspiring math teacher (Nello Allegrezza) and two good biology classes that cemented his desire to be a biologist. Having won a National Merit Scholarship that paid his whole tuition to any state school, De Lisle entered the Boston campus of the University of Massachusetts. He lived at home, commuting daily. There he was able to indulge his love of learning, taking classes of all kinds, and, since his science classes were all lab classes, to learn that he loved working at the bench.

He decided that a biology major required further education, so he applied to graduate school, entering Case Western Reserve. There he worked in the Ulrich Hopfer laboratory, doing research on the pancreas. He visited the Max-Planck Institut also. After finishing his Ph.D., he accepted a postdoc at the University of California at San Francisco, working with John Williams. When Williams went to the University of Michigan, De Lisle followed. At Michigan De Lisle collaborated with Motoji Kitagawa, who was studying the molecular mechanisms in exocytosis. Eventually De Lisle accepted a position at the University of Kansas Medical Center. He set up his laboratory and married Eileen Roach, who had been a technician in Williams' lab. He continues his interest in and work on the pancreas and gastrointestinal system. He is currently working on two broad projects: what *muclin* protein does in the exocrine pancreas; and applications to cystic fibrosis, which he points out was originally called cystic fibrosis of the pancreas. In his occasional spare time he loves to build furniture.

UCLA INTERVIEW HISTORY

INTERVIEWER:

Helene L. Cohen, Interviewer, UCLA Oral History Program. B.S., Nursing, UCLA; P.N.P., University of California, San Diego/UCLA; M.A., Theater, San Diego State University.

TIME AND SETTING OF INTERVIEW:

Place: De Lisle's office, University of Kansas Medical Center.

Dates, length of sessions: April 10, 2000 (103 minutes); April 11, 2000 (105); April 12, 2000 (105).

Total number of recorded hours: 5.2

Persons present during interview: De Lisle and Cohen.

CONDUCT OF INTERVIEW:

This interview is one in a series with Pew Scholars in the Biomedical Sciences conducted by the UCLA Oral History Program in conjunction with the Pew Charitable Trusts's Pew Scholars in the Biomedical Sciences Oral History and Archives Project. The project has been designed to document the backgrounds, education, and research of biomedical scientists awarded four-year Pew scholarships since 1988.

To provide an overall framework for project interviews, the director of the UCLA Oral History Program and three UCLA faculty project consultants developed a topic outline. In preparing for this interview, Cohen held a telephone preinterview conversation with De Lisle to obtain written background information (curriculum vitae, copies of published articles, etc.) and agree on an interviewing schedule. She also reviewed prior Pew scholars' interviews and the documentation in De Lisle's file at the Pew Scholars Program office in San Francisco, including his proposal application, letters of recommendation, and reviews by Pew Scholars Program national advisory committee members. For technical background, Cohen consulted J.D. Watson et al., *Molecular Biology of the Gene*. 4th ed. Menlo Park, California: Benjamin/Cummings, 1987; Bruce Alberts et al., *Molecular Biology of the Cell*. 3rd ed. New York: Garland, 1994; Horace F. Judson, *The Eighth Day of Creation*. New York: Simon and Schuster, 1979; and recent issues of *Science* and *Nature*.

The interview is organized chronologically, beginning with De Lisle's childhood in Buffalo, New York, and continuing through his undergraduate work at University of Massachusetts, his graduate work at Case Western Reserve University, his postdoc at University of California, San Francisco, his research fellowship at University of Michigan, and the establishment of his own laboratory at University of Kansas Medical Center. Major topics discussed include his research in the Ulrich Hopfer laboratory; his study of exocytosis at the University of Michigan and University of California, San Francisco; the impact of the Pew

Scholars in the Biomedical Sciences award; and his current research on *muclin* protein and cystic fibrosis.

ORIGINAL EDITING:

Ji Young Kwon, editorial assistant, edited the interview. She checked the verbatim transcript of the interview against the original tape recordings, edited for punctuation, paragraphing, and spelling, and verified proper names. Words and phrases inserted by the editor have been bracketed.

De Lisle reviewed the transcript. He verified proper names and made minor corrections and additions.

William Van Benschoten, editor, prepared the table of contents. Kwon assembled the biographical summary and interview history. Stephen Wilson, editorial assistant, compiled the index.

TABLE OF CONTENTS

Early Years	1
Family background. De Lisle's siblings. Early school memories. His interest in math and science. The general quality of his elementary school education. Childhood hobbies and activities. His family's move to Massachusetts. De Lisle's secondary education. Resolves to become biologist.	
Undergraduate Years	19
Enters University of Massachusetts, Boston Campus, to which he commutes from home. Spends four years studying. Majors in biology. With guidance from Herbert Lipke, decides to go to graduate school.	
Graduate Years	24
Begins graduate work at Case Western Reserve University. Works in the Ulrich Hopfer laboratory. Visits the Max-Planck-Institut für Biophysic to work on zymogen granules of the pancreas. Receives the Steuer award at Case Western. Works on electrolyte transport in secretory granules of the pancreas.	
Postgraduate Years	33
Conducting postdoctoral research in the John A. Williams laboratory at University of California, San Francisco. Follows Williams to University of Michigan. Collaborates with Motoji Kitagawa in studying the molecular mechanisms involved in exocytosis. De Lisle's postdoctoral career. Delay in seeking a principal investigator (PI) position.	
Later Years	42
Accepts a PI position at University of Kansas Medical Center. Setting up his laboratory. His wife, Eileen A. Roach. Funding. Writing journal articles. Teaching responsibilities. Administrative and professional duties. A typical workday. Collaborations with other scientists. Ethical issues in biomedical research. Tenure. De Lisle's current research on <i>muclin</i> protein. Applications of De Lisle's research to cystic fibrosis. His interest in the pancreas and the gastrointestinal system. His serendipitous discovery of an antibody to the pancreatic duct cell. His love of woodworking.	
Index	98

INDEX

A

acinar, 35, 36, 71, 80, 85, 87
Allegrezza, Nello, 14
American Heart Association, 48
American Type Culture Collection, 87
Andrews, Glen K., 65, 66
Ann Arbor, Michigan, 37, 44
Asheville, North Carolina, 8
ATCC. *See* American Type Culture
Collection
Attica State Prison, 2
Auschwitz-Birkenau, Poland, 2

B

Banerjee, Sigdha, 44
Besharse, Joseph C., 42, 43
Boston State University, 19
Boston, Massachusetts, 19, 23
Brandeis University, 23
Buffalo, New York, 1, 2, 5, 6, 8, 12

C

Cape Cod, Massachusetts, 4
Capecci, Mario, 93, 94
Case Western Reserve University, 23, 25,
30, 52, 66, 82
Castle, J. David, 33
Celera Genomics, 79
CF. *See* Cystic Fibrosis Foundation
CFTR. *See* cystic fibrosis transmembrane
conductance regulator
Cheektowaga, New York, 2, 9
Chile, 52
Clark, Fiona (brother's partner), 8
Clarke, Ann, 73
Cleveland Institute of Art, 8
Cleveland, Ohio, 8, 24, 25, 30, 32, 34, 39
Collins, Francis S., 80
Cotton, Calvin U., 82
Creutz, Carl E., 33

cystic fibrosis, 81, 84
Cystic Fibrosis Foundation, 35, 48, 81
cystic fibrosis transmembrane conductance
regulator, 81, 82, 84
cytosolic, 65, 80

D

De Lisle Jr., John W. (nephew), 6
De Lisle Jr., William E. (father), 1
De Lisle Sr., William E. (paternal
grandfather), 1
De Lisle, Daniel E. (brother), 5
De Lisle, Diane A. (sister-in-law), 7
De Lisle, Dorothy A. (mother), 1, 38
De Lisle, Eric (nephew), 7
De Lisle, Katherine (niece), 6
De Lisle, Michael (nephew), 6
De Lisle, Michelle (sister-in-law), 7
De Lisle, Nina S. (paternal grandmother), 1
De Lisle, Steven L. (brother), 7, 19
De Lisle, Susan G. (sister-in-law), 6
De Lisle, Timothy (nephew), 7
De Lisle, Tina L. (sister), 7
De Lisle, Vincent A. (brother), 8, 92
De Lisle, William E. (father), 38
diacyl glycerol, 36
digitonin, 36
DNA, 59, 61, 62, 64, 78, 94
cDNA, 61, 63, 64, 70, 80, 81, 87

E

electrolyte transport, 26, 31, 32, 33, 81, 83
exocrine, 31, 65, 80, 81, 82, 83, 84, 87
exocytosis, 31, 35, 36

F

Farquhar, Marilyn G., 33
Frankfurt, Germany, 28
Frizzell, Raymond A., 81

G

General Telephone and Electronics Corporation, 3
Glowicki, Bernard A. (maternal uncle), 2
Glowicki, Bernard D. (maternal grandfather), 2, 86
Glowicki, David Bernard (maternal cousin), 3
Glowicki, Johanna G. (maternal grandmother), 1
Glowicki, Mark James (maternal cousin), 3
Golden Gate Park, 34
Golgi, 80
Gomperts, Bastien, 36
Grass Valley, California, 8
GTE. *See* General Telephone and Electronics Corporation
GTP. *See* guanosine triphosphate
guanosine triphosphate, 36

H

Heitmann, Allen (brother-in-law), 5
Heitmann, Alyssa (niece), 5
Heitmann, Ann M. (sister), 5, 19
Heitmann, Charla (niece), 5
HIV. *See* human immunodeficiency virus
Holtz, Ron, 33
Hootman, Seth R., 33
Hopfer, Ulrich, 26, 28, 30, 33, 81, 83
Human Genome Project, 78
human immunodeficiency virus, 79

I

Ilan, Joseph, 23
Isom, Kathryn, 44

J

Japan, 36

K

Kansas, 41, 47, 51, 96
Kansas City, Kansas, 42, 46, 48, 70
Kitagawa, Motoji, 36
KU. *See* University of Kansas

L

Lehninger, Albert, 26
Life Technologies, 70
Limbaugh, Rush, 6
Lipke, Herbert, 23
Logsdon, Craig D., 85
lysosomal, 80

M

Mahowald, Anthony, 25
Max-Planck-Institut für Biophysik, 28
McCoy, Marissa (niece), 8
McCoy, Matthew (brother-in-law), 8
McCoy, Matthew V. (nephew), 8
Memphis, Tennessee, 42
metallothionien, 65, 66
Michigan State University, 33
Milford, Massachusetts, 7
Mt. Zion Hospital, 33
muclin, 59, 80, 82, 84

N

National Institutes of Health, 25, 35, 36, 37, 48, 70, 71, 72, 73, 95, 96
National Merit Scholar, 19
NIH. *See* National Institutes of Health
Nobel Prize, 83, 94
Northern blot, 72, 81

O

O'Dierno, Theresa D. (paternal aunt), 1, 3
O'Dierno, Thomas (paternal uncle-in-law), 1
Omaha, Nebraska, 88
Osram Sylvania Company, 3, 7

P

Palade, George, 83
Palowski, Raymond, 32
pancreas, 28, 31, 33, 65, 66, 78, 80, 81, 82, 83, 84, 85, 87
pancreatitis, 80, 84, 85
Pew Scholars in the Biomedical Sciences, 6, 30, 61, 70, 71, 72, 73, 82
prions, 93, 94

Prusiner, Stanley B., 93, 94
Prussia, 2

Q

Quebec, Canada, 1

R

R01, 45, 71
Ralph, Frank (paternal uncle-in-law), 2
Ralph, Mary D. (paternal aunt), 1
Raytheon Company, 7
Roach, Eileen A. (wife), 33, 34, 39, 44, 88, 94
Rothman, Stephen S., 28, 29

S

San Francisco, California, 8, 34, 39, 43
Sarras Jr., Michael P., 65, 66
Schulz, Irene, 28
SD S-PAGE. *See* sodium dodecyl sulfate-polyacrylamide gel electrophoresis
Shakespeare, William, 15
Singer, Marcus, 25
sodium dodecyl sulfate-polyacrylamide gel electrophoresis, 82
Steuer Award, 30
streptolysin O, 36

U

UCSF. *See* University of California at San Francisco
UMass. *See* University of Massachusetts
University of California at San Francisco, 8, 28, 33, 36, 66, 93
University of Kansas, 26, 45, 61, 66, 75, 76, 86
University of Massachusetts, 19, 22
University of Michigan, 33, 36, 37, 40, 66
University of Utah, 93
University of Virginia, 33
University of Wisconsin, 43, 77
Ussing chamber, 83

W

Watertown, New York, 1
Western blot, 85
Will, Peter C., 27, 28
Williams, John A., 33, 34, 36, 37, 40, 43, 83
Wilson, Edward O., 67
Woonsocket, Rhode Island, 7

Y

Yale University, 33

Z

Ziemer, Donna, 44
zymogen, 28, 35, 81