

Curriculum Vitae, Iris Lindberg, Ph.D.

Date: August 1, 2025

Contact Information:

Address: Department of Anatomy and Neurobiology
University of Maryland School of Medicine, UMB
20 Penn St, HSFII, S267
Baltimore, MD 21201

Phone: (410) 706-4778 (office and lab)

E-mail: ilindberg@som.umaryland.edu or ilindb@yahoo.com

Website: <http://thelindberglab.com>

Education

June 1975 A.B. Biochemistry University of California at Berkeley, CA

Dec 1980 Ph.D. Pharmacology University of Wisconsin Medical School, Madison, WI

Post-Graduate Education and Training

1981 - 1984 Staff Fellow; NRSA Postdoctoral Fellow;
and Pharmacology Research Associate Trainee (PRAT program)
Laboratory of Preclinical Pharmacology,
NIMH, St. Elizabeth's Hospital, Washington D.C.

Employment

1984 - 1989 Assistant Professor, Dept. of Biochemistry and Molecular Biology
Louisiana State University Medical School
New Orleans, LA

1989 - 1994 Associate Professor (tenured), Dept. of Biochemistry and Molecular Biology,
Louisiana State University Health Sciences Center (name changed)
New Orleans, LA

1994 - 2007 Professor, Dept. of Biochemistry and Molecular Biology
Louisiana State University Health Sciences Center
New Orleans, LA

2006 - 2007 LSUHSC Cancer Center Member

2007 - present Professor, Department of Neurobiology
University of Maryland School of Medicine
Baltimore, MD
Secondary Appointment: Department of Biochemistry and Molecular Biology
Member: Greenebaum Cancer Center; Aging Center

Professional Society Memberships

1978 - present Society for Neuroscience

1982- present	Winter Conference on Brain Research
1985 - 2005; 2011-pres.	American Society for Biochemistry and Molecular Biology
2013- 2014	American Society for Bone and Mineral Research
2001 -2022	The Endocrine Society

Career Development Awards and Honors

1981	NIH Individual Postdoctoral Fellowship (switched to PRAT)
1981-1983	Pharmacology Research Associate Traineeship (PRAT)
1988-1993	Research Career Development Award (NIDDK)
1993-1998	Research Scientist Development Award (NIDA)
1998-2003	Research Scientist Development Award (NIDA)
2018	Elected AAAS Fellow (Biological Sciences)

Administrative Service

Institutional Service (Committees)

Louisiana State University Health Sciences Center

1985-2007	LSUHSC Neuroscience Center Executive Steering Committee
1986-1988	Biochemistry Dept. Graduate Recruitment Committee
1992-1997	LSUHSC Graduate Council
1996-2000	LSUHSC Neuroscience Center Faculty Recruitment Committee
1997-2002	Neuroscience Center Graduate Program Recruitment Committee
2001	LSU School of Medicine Research Retreat Committee
2003-2004	Emergency Preparedness Faculty Committee, LSUHSC
2003-2005	LSUHSC Research Council
2004	Biochemistry Dept. Graduate Recruitment Committee
2004-2005	Faculty Search Committee, Biochemistry Department
2004-2005	Graduate Advisor, Biochemistry Department
2004-2005	LSUHSC Graduate Council
2005-2007	Faculty Assembly, LSUHSC

University of Maryland-Baltimore

2007- 2015	Program in Neuroscience Seminar Committee, University of Maryland
2007- 2012	Program in Neuroscience Training Committee, University of Maryland
2008-2013	Dept. Anatomy & Neurobiology Faculty Search Committee
2008- 2011	Proteomics Core Steering Committee, University of Maryland
2009- 2010	Pharmacology Head Search Committee, University of Maryland
2009- 2016	Departmental Representative or Alternate, School of Medicine Council
2010, 2012	Qualifying Exam Committee, Program in Neuroscience
2010- 2014	Chair , Program in Neuroscience Retreat Committee
2012- 2015	Univ. of Maryland Program in Neurosciences Postdoctoral Training Grant Steering Committee
2011	Univ. of Maryland Strategic Plan Subcommittee (Research)
2010- 2015	Junior faculty mentoring committees, Drs. Elizabeth Powell & Marta Lipinski
2007- 2024	Anat. & Neurobiol. APT Committee; Chair, 2010- 2014; Chair, 2021- 2024

2009- present	Biomedical Research Radiation Safety Committee, University of Maryland; Chair, 2016 – present
2009- present	Radiation Safety Committee, University of Maryland (umbrella group)
2017- present	CIBR Advisory Committee
2023- present	UM MIND ARDC Working Group; faculty reviewer
2023- present	PIN student application reviewer
2024- present`	IACUC committee member
2024- present	SOM APT committee member
2009 -present	Mentor, PIN and Membrane Biology training grants
2021 - 2023	Medical student interviewer (3h/week)
9/2024	Aurelian Award Committee (grant review)
10/2024	Brain Research Foundation Seed grant, UMB nominations, review committee
10/2024	MSCRF panel presentation to prospective applicants
12/2024	CARTI “Submitting a Revised Grant” presentation
1/2025	CARTI grant reviewer
4/2025	Brain Research Program Scientific Innovations Award (SIA) reviewer

Other Institutional Service

LSUHSC:

1990, 1992, 1995, 1997	LSUHSC Design & production of Biochemistry Dept. recruitment brochure
1997-2002	LSUHSC Neuroscience Center brochure production
2004- 2006	Grantsmanship presentations to faculty and students

University of Maryland-Baltimore:

2008	Presentation to UMB graduate students: “How to Succeed in Grad School”
2010	“Getting an RSDA” (Wendy Sanders’ Professional Skills program)
2019	Organized a panel discussion on negotiation strategies in 2019 (“ <i>Acquiring professional confidence and visibility</i> ”)
2019	Assisted the Dean’s Office with the official establishment of the “Women in Medicine and Science” organization
2021	Volunteer work during the Covid pandemic (vaccine information distribution)
2009 - 2023	Organizer , Departmental “Second Monday” Work-in-Progress seminar series
2024 -present	(proposed) NIA R25 grant mentor (Isabell May, PI)

Ph.D. Thesis Committees

Louisiana State University Health Sciences Center:

Minetta Gardinier, Jeremy Springhorn, Richard Shen, Yi Zhou, John Mathis, Tamim Shaikh, Erik Pakarinen, Joomyeong Kim, Virginia Strand, Astrid Roy, Ping Wei, Mary Breslin, Neva West, Yolanda Fortenberry, Mike Serou, Changning Gong, Bin Tu, Peimin Zhu, Yuri Peterson, Faramarz Taheri, Eleanor Park, and Tanya Roy

University of Maryland-Baltimore Ph.D. Committees:

Amanda Elson, Zhongping Liu, Akina Hoshino, Adam Clark, Erik Martin, Patricia Cunfer (Young), Alexandra Winters, and Julia Peters (Thayer)

Recent Qualifying Examiner:

Nicole Higgins (2019); Phillipa Rogers (2023); Deore Dhanashree (2025)

Local Service

1985-86, 1988-89	<i>Secretary, Greater New Orleans Society for Neuroscience</i>
2005-2006	<i>President, Greater New Orleans Society for Neuroscience</i> In 2005-06, my major duty was to organize the distribution of \$100,000 in Katrina relief funds from the national Society for Neuroscience to local neuroscience graduate students.
2012- 2013	<i>President, Greater Baltimore Society for Neuroscience</i>
2014- 2019	<i>Treasurer, Greater Baltimore Society for Neuroscience</i>
2021	Centennial High School, MD (gave career talk on success in science)

National Service**Journal Manuscript Review**

1990- present	<i>Ad hoc reviewer, J. Biol. Chem., J. Neurochem., Peptides, J. Neurosci., Analyt. Biochem., FEBS Lett., Protein Eng., Design and Selection, Proc. Natl. Acad. Sci, Endocrine Rev., Diabetes, Molecular Medicine and Metabolism, Mol. Cell. Endocrinol., J. Endocrinol., Endocrinol, PLoS One, Mol. Biol. Cell, Eur. J. Cell Biol., Nature Commun. eLife ...and many others</i>
2000-2005	Editorial Board Member, <i>Journal of Biological Chemistry</i>
2012-2017	Editorial Board Member, <i>Journal of Biological Chemistry</i>

Gordon Conference Service

1998, 2000	Advisory Committee Member, Gordon Conference: <i>Hormonal and Neural Peptide Synthesis</i>
2002	Vice-Chair, Gordon Conference: <i>Hormonal and Neural Peptide Synthesis</i>
2004	Chair, Gordon Conference: <i>Proprotein Processing, Trafficking, and Secretion</i>
2006-2018	Advisory Committee Member, Gordon Conference: <i>Proprotein Processing, Trafficking, and Secretion</i>
2016, 2018, 2022	Chair/ Co-Chair of the Power Hour at the above-mentioned GRC

National Society Service

2008-2011	Winter Conference on Brain Research, <i>Scientific Board</i>
2017-2018	Review committees, Society for Neuroscience travel applications AND trainee professional development awards
2019	AAAS If/Then Ambassador reviewer

Grant Reviewer, NIH

1987	Study section reviewer, NLS1
1989, 1997	Study section reviewer, NIDA Biochemistry

1989, 1990	Special emphasis panel member, NIDDK
1991	Study section reviewer, NIMH career awards
1994	Special emphasis panel member, NINDS
1995	Study section reviewer, NLS1
1995, 1996, 1998	Study section and special emphasis panel reviewer, END/NIDDK
1996, 1997, 2002	Study section reviewer, NLS1
1996-2000	Standing member, Endocrinology study section
1999	Study section reviewer, ACS
2000	NIMH Career Awards study section reviewer
2000-2005	Endocrinology study section reviewer (about 1 panel per year)
2007-2010	Standing member, Molecular and Cellular Endocrinology study section
2010	Special Emphasis Panel reviewer, NIDDK 2/2010
2011	EUREKA NIH review panel member 12/2011
2013	SBIR study section, 3/2013
2015	MCE study section reviewer 6/2015
2015	SBIR reviewer 10/2015
2016	Special Emphasis Panel 6/2016
2018	NIH internal review site visit 5/2018
2018	NIDA internal review site visit, 12/2018
2020	NIH F05 Fellowship review panel 3/2020
2022	R16 SURE award review panel, 11/2022

International Review Service

2002	Finnish National Academy of Sciences Review Panel, Helsinki, Finland
2002-2016	Canada College of Reviewers
2003	Chair, Finnish National Academy of Sciences Review Panel
2005- present	Various European granting agencies (about one grant per year; most recent review in 2024). Includes Wellcome Trust; Univ. Leuven; etc.
2024	Prader-Willi Foundation reviewer

Teaching

LSUHSC

1985- 1986	Dental Biochemistry (17 lecture h per year) - 85 students
1985-2005	One lecture in "Methods in Neuroscience" - 15 students (course given at Tulane University in alternate years on protein expression methods) (2 h)
1987 -1999	Medical Biochemistry (17 h) -150 students
1991, fall	Graduate seminar in the cell biology of protein targeting (20 h) 8 students
1995 - 2001	Neuroscience Survey (2 h) 8 students
1997	Endocrinology (on radioimmunoassay and opioid peptides) (2 h) 10 students
1998- 2004	Molecular Neuroscience (on neurotransmitters) (4 h) 8 students
2000	Nursing Biochemistry (20 h) 80 students
2001	Graduate Seminar in Protein Motifs (20 h) 7 students

2001, 2002	Special Topics Graduate Seminar in Methods in Biochemistry; (Protein Expression and Purification) (2 h); 8 students
2003, 2006, 2007	Endocrinology - Bioactive peptides and radioimmunoassay (4 h and 2h); 12 students
2003-2005	Graduate Seminar- "Professional Skills"; Graduate student mentoring: giving talks, preparing grants, manuscripts, career choices (30 h); 12 students
2006	Dental Biochemistry (4 h); 85 students
2006	Molecular Neuroscience - Neuropeptides (4 h) and Grantsmanship (1 h)

University of Maryland-Baltimore

2008- 2010	Professional Skills course in Molecular Medicine "How to Write/Review Grants" (1 h) 20 students
2010 -2020	Systems Neuroscience (GPILS 641) "Neuropeptides" (2 h); "Special Topics in Neurodegeneration" in 2020; 10-12 students
2010- 2020	Structure and Development "Thyroid, Parathyroid, and Adrenal" (1 h); 180 students
2015- 2020	Medical Neuroscience "Monoamines" and "Peptide Neuromodulators" (1-2 h); 180 students
2021	Advanced Neuroscience Investigation "Parkinson's Disease" (1 h); student-led; 11 students
2008- <i>present</i>	GPILS Core Course "Posttranslational Modifications" (2 h); 50 students
2009- <i>present</i>	Ethics Class, Discussion Leader (1.5 h) twice a year (small groups of 10-15)

Students and postdoctoral fellows supervised

Graduate Students supervised (rotation students not listed)

1. Fu-Sheng Shen (1986- 1988) (Ph.D. 1990, from Institute of Physiology, Beijing)
2. John Mathis (1988- 1994) Ph.D. 1994
3. Yi Zhou (1990- 1994) Ph.D. 1994
4. Yolanda Fortenberry (1997- 2001) Ph.D. 2001
5. Maria Sayah (3/00- 12/00) (Master's thesis; French practical training)
6. Valery Iattignon (1/04- 4/04) (Master's thesis; French practical training)
7. Akina Hoshino (11/07- 4/2012) Ph.D. 2012
8. Alexandra Winters (2013-2016) (co-mentor with Dr. Toni Pollin) Ph.D. 2016

Postdoctoral Fellows Supervised

1. Dr. Nympha D'Souza (1987-1988)
2. Dr. Steven Roberts (1988- 1991)
3. Dr. Joseph Irvine (1989- 1991)
4. Dr. Fu-Sheng Shen (1991- 1992)
5. Dr. Osvaldo Vindrola (1991- 1993)
6. Dr. Nazarius Lamango (1994- 1996)
7. Dr. Xiaorong Zhu (1994- 1997) **NRSA Fellowship**
8. Dr. Karla Johanning (1994- 1998)
9. Dr. Laurent Muller (1996- 1999)
10. Dr. Ekaterina Apletalina (1997- 2000)
11. Dr. Jae-Ryoung Hwang (1998- 2001)

12. Dr. Angus Cameron (1999- 2000)
13. Dr. Virginie Laurent (1999-2002)
14. Dr. Ashok Dubey (2000- 2001)
15. Dr. Miroslav Sarac (2000- 2003)
16. Dr. Emmanuel Prodhomme (2001-2002)
17. Dr. Weidong Liu (2001-2002)
18. Dr. Sang-Nam Lee (2002- 2007)
19. Dr. Juan Ramon Peinado (2003-2004)(2013)(2019-2020), **Visiting Assistant/Associate Professor, Ciudad Real University, Spain**
20. Dr. Magdalena Kacprzak (2003- 2005)
21. Dr. Bainan Liu (2004- 2005)
22. Dr. Dorota Kowalska (2005) and (2008-2009; **Visiting Assistant Professor**)
23. Dr. Wagner Judice (2006- 2007) **NIDA INVEST Fellow**
24. Dr. Jin Liu (2006- 2008)
25. Dr. Akihiko Ozawa (2006- 2011)
26. Dr. Michael Helwig (2009- 2012) **Leopoldina Fellowship**
27. Dr. Mirella Vivoli (2010- 2012)
28. Dr. Indrani Dasgupta (2011-2013)
29. Dr. Laura Sanglas (2011-2012) **Danish Academy Fellowship**
30. Dr. Hiroyuki Yamamoto (2013) **Visiting Assistant Professor, Shizuoka University, Japan**
31. Dr. Elias Blanco (2013- 2015) **Chilean Government Fellowship 2014-2105**
32. Dr. Yogikala Prabhu (2011; 2013)
33. Dr. Bruno Ramos-Molina (2014 - 2015)
34. Dr. Timothy Jarvela (2015-2020) **UMB SOM Diabetes Training Grant Fellow 2016-2019**
35. Dr. Tomas Bachor (2017 - 2018)
36. Dr. Manita Shakya (2018 -2022)
37. Dr. Kriti Chaplot (2019 -2022)

In addition, I have mentored over two dozen UMBC undergraduate students as well as four local high school students.

Grant Support

Ongoing Research Support

Neuroprotection by an endogenous chaperone in a stem cell model of Parkinson's disease.

Maryland Stem Cell Research Foundation Discovery Grant (I. Lindberg; 20% effort)

July 1, 2024- June 30, 2026

The aim of this project is to study the role of a neuroprotective chaperone, proSAAS, in a genetically controlled, fully neuronally differentiated human stem cell model of Parkinson's disease.

Completed Research Support (Competing NIH applications and other grants)

1/85 - 12/86 I. Lindberg, PI

"Pharmacologic control of opioid peptide biosynthesis."

Pharmaceutical Manufacturer's Association Starter Grant

4/85 - 11/88 I. Lindberg, PI (30% effort)

	"Biosynthesis of enkephalin in the adrenal medulla."
	R01 DK35199-01
4/88 - 3/91	I. Lindberg, PI (30% effort)
	"Opioid peptide-synthesizing enzymes"
	R01 DA05084-01
7/88 - 6/93	I. Lindberg, PI (90% salary)
	Research Career Development Award
	K04 DK 01868 (salary award)
12/88 - 11/91	I. Lindberg, PI (30% effort)
	"Biosynthesis of enkephalin in the adrenal medulla."
	R01 DK35199-04
4/91 - 3/94	I. Lindberg, PI (30% effort)
	"Opioid peptide-synthesizing enzymes"
	R01 DA 05084-04
10/93- 9/98	I. Lindberg, PI (75% salary)
	Research Scientist Development Award
	K02 DA00204-01 (salary award)
4/94 - 3/99	I. Lindberg, PI (30% effort)
	"Opioid peptide-synthesizing enzymes"
	R01 DA 05084-07
7/96- 3/02	I. Lindberg, PI (30% effort)
	"Control of peptide hormone biosynthesis by PC2 and 7B2"
	R01 DK49703-01
10/98- 9/03	I. Lindberg, PI (75% salary)
	Research Scientist Development Award
	K02 DA 00204-06 (salary award renewal)
4/99- 3/04	I. Lindberg, PI (30% effort)
	"Opioid peptide-synthesizing enzymes"
	R01 DA005084-12
4/02- 3/07	I. Lindberg, PI (30% effort)
	"Control of peptide hormone biosynthesis by PC2 and 7B2"
	R01 DK49703-06
2004	I. Lindberg, PI Gordon Conference support grant
	"Proprotein processing, trafficking and secretion"
	5R13 DK061936
2004	I. Lindberg, PI NSF Conference Support: received \$2,000 for a poster award
	program for the same Gordon Conference cited above
4/04-3/09	I. Lindberg, PI (30% effort)
	"Opioid peptide-synthesizing enzymes"
	R01 DA005084-17
9/02-8/05	I. Lindberg, PI (20% effort)
	"Blockade of anthrax toxin cytotoxicity using furin inhibitors"
	R21 AI053517-01

8/03-8/06	P. Sunkara, PI (5% effort) "Hexa-D-Arg: a furin inhibitor for anthrax biodefense" Subcontract, Molecular Therapeutics SBIR R43 AI 056850
9/04-3/06	S. Pincus, PI (5% effort) "Furin Inhibition in HIV Disease" R21 AI058714-01
3/06-6/06	I. Lindberg, PI (10% effort) "Furin as an Anti-Cancer Target" Louisiana Cancer Research Consortium
6/09- 5/11	I. Lindberg, PI (20% effort) "Identification of Novel Peptide Hormones" R21 DK084481-01
9/09- 3/14	I. Lindberg (P.I.) (30% effort) "Control of peptide hormone biosynthesis by PC2 and 7B2" R01 DK49703-12
7/09-6/14	I. Lindberg and B. Roth (co-P.I.s) (30% effort) "De-orphanizing the peptidome" R01 DA027170-01
4/09-3/14	I. Lindberg, PI (30% effort) "Opioid peptide-synthesizing enzymes" R01 DA005084-22
4/15-6/17	I. Lindberg (P.I.) (20% effort) (bridge support) "Opioid Peptide Synthesizing Enzymes" R56 DA05084-28A1
9/14-4/18	I. Lindberg (P.I.) (20% effort) "The Secretory Chaperone 7B2 as an Endogenous Regulator of Amyloid Pathology" R21 AG045741-02
6/17 - 5/23	I. Lindberg (PI) (40% effort) "Opioid Peptide Synthesizing Enzymes" R01 DA042351-06
12/18-12/24	I. Lindberg and N. Maidment, Co-PIs (40% effort) (1 year NCE) "ProSAAS-mediated neuroprotective mechanisms in Alzheimer's and Parkinson's diseases: the role of secretory chaperones in neurodegeneration" R01 AG062222 -06

A **250K NIA supplement** was awarded to the above grant in November 2020 to study a possible role for cyto-proSAAS in encapsulating TDP-43 in frontotemporal dementia; work was delayed due to the pandemic

An ARRA Supplement was received in 2010 for purchase of AKTA FPLC (\$70,000)

I have also contributed sections to several **COBREs** and **equipment grants** awarded to LSUHSC faculty. At the University of Maryland, I contributed to various **ARRA Equipment Supplement** and **Multi-User Equipment** applications, for example a **new scanning electron microscope** in 2021 and a **super-resolution confocal microscope** in 2022.

Research Support as Mentor

07/95-06/98	Mentor to Dr. Xiaorong Zhu, NRSA postdoctoral fellowship
10/97-08/00	Mentor to Ms. Yolanda Fortenberry, NRSA predoctoral fellowship
12/06-12/07	Mentor to Dr. Wagner Judice, NIDA INVEST fellowship
08/10-08/12	Mentor to Dr. Michael Helwig, Leopoldina fellowship
06/11-06/12	Co-mentor to Dr. Laura Sanglas, Danish Academy fellowship
05/16-04/19	Mentor to Dr. Timothy Jarvela, UMSOM Diabetes and Obesity Training Grant

Patents

1. Patent # 6,548,736 on the 7B2 null mouse as a model for pituitary Cushing's was granted in 1999 to C.H. Westphal, **I. Lindberg**, and P. Leder.
2. Patent # 7,033,991 on polyarginine furin inhibitors in inhibiting bacterial and viral infections was granted on April 25, 2006 to **I. Lindberg**, A. Cameron, J. Appel, and R.A. Houghten.

Publications

Peer-reviewed articles and reviews

1. **Lindberg, I.**, Smythe, S., and Dahl, J.L. (1979) Regional distribution of enkephalin in bovine brain. *Brain Research*, **168**, 200-203. PMID: 222395
2. **Lindberg, I.**, and Dahl, J.L. (1981) Characterization of enkephalin release from rat striatum. *J. Neurochem.* **36**, 506-512. PMID: 7463074
3. Epstein, M., **Lindberg, I.**, and Dahl, J.L. (1981) Development of enkephalinergic neurons in the gut of the chick. *Peptides* **2**, 271-276. PMID: 6170962
4. **Lindberg, I.**, Yang, H.-Y.T., and Costa, E. (1982) An enkephalin-generating enzyme in bovine adrenal medulla. *Biochem. Biophys. Res. Commun.* **106**, 186-193. PMID: 7049167
5. Dahl, J.L., Epstein, M.L., Silva, B.W., and **Lindberg, I.** (1982) Multiple forms of met⁵- and leu⁵-enkephalin in fetal and neonatal rat brain and gut. *Life Sci.* **31**, 1853-1856. PMID: 7154839
6. **Lindberg, I.**, Yang, H.-Y.T., and Costa, E. (1982) Characterization of a partially purified trypsin-like enkephalin-generating enzyme in bovine adrenal medulla. *Life Sci.* **31**, 1713-1716. PMID: 7154830
7. **Lindberg, I.**, Yang, H.Y., Costa, E. (1982) Enzymatic production of Met⁵- and Leu⁵-enkephalin in adrenal chromaffin granules. *Adv. Biochem Psychopharmacol.* **1982**;33:183-91 PMID: 7124495
8. **Lindberg, I.**, Yang, H.-Y.T., and Costa, E. (1983) A high molecular weight form of met⁵-enk-arg⁶-gly⁷-leu⁸ in rat brain and bovine adrenal chromaffin granules. *Life Sciences* **33** Supp. I., 5-8. PMID: 6664232
9. **Lindberg, I.**, and Yang, H.-Y.T. (1984) Distribution of met⁵-enk-arg⁶-gly⁷-leu⁸-immunoreactive peptides in rat brain: presence of multiple immunoreactive forms. *Brain Research* **299**, 73-78. PMID: 6722569
10. **Lindberg, I.**, Yang, H.-Y.T., and Costa, E. (1984) Further characterization of an enkephalin-generating enzyme from bovine adrenal chromaffin granules. *J. Neurochem.* **42**, 1411-1419. PMID: 6368750
11. **Lindberg, I.**, Yang, H.-Y.T., and Costa, E. (1985) Release of multiple immunoreactive forms of met⁵-enk-arg⁶-gly⁷-leu⁸ from rat brain. *Neuropeptides* **5**, 541-544. PMID: 4000423

12. **Lindberg, I.**, and White, L. (1986) Reptilian enkephalins: implications for the evolution of proenkephalin. *Arch. Biochem. Biophys.* 245, 1-7. PMID: 3947092
13. Wang, Y.N. and **Lindberg, I.** (1986) Distribution and characterization of met-enk-arg-gly-leu in the gastrointestinal tract of the rat. *Cell and Tissue Res.* 244, 77- 85. PMID: 3516403
14. **Lindberg, I.**, and White, L. (1986) Distribution of immunoreactive Peptide B in the rat brain. *Biochem. Biophys. Res. Commun.* 139, 1024-1032. PMID: 3767990
15. **Lindberg, I.** (1986) Reserpine-induced alterations in the processing of proenkephalin in cultured chromaffin cells: increased amidation. *J. Biol. Chem.* 261, 16317- 16323. PMID: 3782121
16. **Lindberg, I.** (1986) On the evolution of proenkephalin. *Trends in Pharmacol. Sci.* 7, 216-218.
17. Panula, P., and **Lindberg, I.** (1987) Enkephalins in the rat pituitary gland: biochemical and immunohistochemical observations. *Endocrinology* 121, 48-58. PMID: 2954813
18. Byrd, J., Naranjo, J., and **Lindberg, I.** (1987) Proenkephalin gene expression in the PC12 cell line: stimulation by sodium butyrate. *Endocrinology* 121, 1299-1305. PMID: 3653029
19. D'Souza, N. and **Lindberg, I.** (1988) Evidence for the phosphorylation of a proenkephalin-derived peptide, Peptide B. *J. Biol. Chem.* 263, 2548-2552. PMID: 3339021
20. Shen, F.S. and **Lindberg, I.** (1988) Characterization of enkephalin-immunoreactive peptides generated from plasma proteins by peptic digestion. *Endocrinology* 122, 2905-2910. PMID: 3131127
21. Shen, F-S., and **Lindberg, I.** (1989) Purification and assay of opioid activity of low molecular weight enkephalin-immunoreactive peptides generated by peptic digestion of rat plasma proteins. *Neuropeptides* 13, 23-28. PMID: 2537935
22. Shen, F-S., Roberts, S.F., and **Lindberg, I.** (1989) A putative processing enzyme for proenkephalin in bovine adrenal chromaffin granules- purification and characterization. *J. Biol. Chem.* 264, 15600-15605 PMID: 2768280
23. **Lindberg, I.**, and Thomas, G. (1990) Cleavage of proenkephalin by a chromaffin granule processing enzyme. *Endocrinology* 126, 480-487. PMID: 2294000
24. Irvine, J., Roberts, S.F., and **Lindberg, I.** (1990) Electrophoretic analysis of proteinases in sodium dodecyl sulfate polyacrylamide gels containing copolymerized radiolabelled protein substrates: application to proenkephalin processing enzymes. *Analyt. Biochem.* 190, 141-146. PMID: 2285141
25. **Lindberg, I.**, Shaw, E., Finley J., Leone, D., and Deininger, P. (1991) Posttranslational modifications of recombinant rat proenkephalin overexpressed in Chinese hamster ovary cells. *Endocrinology* 128, 1849-1856. PMID: 2004604
26. **Lindberg, I.** (1991) "The new mammalian precursor processing proteinases." *Mol. Endocrinol.* 5, 1361-1365. PMID: 1775127
27. Irvine, J.W., and **Lindberg, I.** (1991) Partial purification and characterization of a putative prohormone processing enzyme complex from bovine pituitary. *Endocrinology* 128, 2345- 2352. PMID: 2019254
28. **Lindberg, I.**, and Shaw, E. (1992) Posttranslational processing of proenkephalin in a human neuroblastoma cell line, SK-N-MC. *J. Neurochem.* 58, 458-453. PMID: 1729392
29. Roberts, S.F., Irvine, J.W., and **Lindberg, I.** (1992) Proteolytic activity in bovine adrenal chromaffin granules visualized using [³⁵S]methionine-labelled proenkephalin copolymerized into SDS-PAGE. *J. Neurochem.* 58, 593-599. PMID: 1729404
30. **Lindberg, I.**, Lincoln, B., and Rhodes, C.J. (1992) Fluorometric assay of a calcium-dependent, paired basic processing endopeptidase present in insulinoma granules. *Biochem. Biophys. Res. Commun.* 183, 1-7. PMID: 1543479
31. Vindrola, O., and **Lindberg, I.** (1992) Biosynthesis of the prohormone convertase mPC1 in AtT-20 cells. *Mol. Endocrinol.* 6, 1088-1094. PMID: 1508222

32. Mathis, J., and **Lindberg, I.** (1992) Posttranslational processing of proenkephalin in AtT-20 cells: evidence for cleavage at a Lys-Lys site. *Endocrinology* 131, 2287-2296. PMID: 1425427
33. Zhou, Y., and **Lindberg, I.** (1993) Purification and characterization of the prohormone convertase PC1 (PC3) *J. Biol. Chem.* 268, 5615- 5623. PMID: 8449925
34. Shen, F.S., Seidah, N.G., and **Lindberg, I.** (1993) Biosynthesis of the prohormone convertase PC2 in Chinese hamster ovary cells and in rat insulinoma cells. *J. Biol. Chem.* 268, 24910-24915. PMID: 8227053
35. Breslin, M., **Lindberg, I.**, Benjannet, S., Lazure, C., Mathis, J.P., and Seidah, N.G. (1993) Processing of proenkephalin by PC1(PC3), PC2, and furin. *J. Biol. Chem.* 268, 27084-27093. PMID: 8262946
36. Vindrola, O., and **Lindberg, I.** (1993) Release of the prohormone convertase PC1 from AtT-20 cells. *Neuropeptides* 25, 151-160. PMID: 8413860
37. Hornby, P.J., Rosenthal, S.D., Mathis, J.P., Vindrola, O., and **Lindberg, I.** (1993) Immunocytochemical analysis of the neuropeptide-synthesizing enzyme PC1 in AtT-20 cells. *Neuroendocrinol.* 58, 555-563. PMID: 8115023
38. Dupuy, A., **Lindberg, I.**, Zhou, Y., Akil, H., Lazure, C., Chretien, M., Seidah, N.G., and Day, R. (1994) Processing of prodynorphin by the prohormone convertase PC1 results in high molecular weight intermediate forms: cleavage at a single arginine. *FEBS Lett.* 337:60-65. PMID: 8276115
39. O'Hara, B.F., Donovan, D., **Lindberg, I.**, Brannock, M.T., Ricker, D.D., Moffatt, C.A., Klaunberg, B.A., Schindler, C., Chang, T.S.K., Nelson, R.J., and Uhl, G.R. (1994) Proenkephalin transgenic mice: a short promotor confers high testis expression and reduced fertility. *Mol. Reprod. and Devel.* 38, 275-284. PMID: 7917279
40. Martens, G.M., Braks, A.M., Eib, D., Zhou, Y., and **Lindberg, I.** (1994) The neuroendocrine polypeptide 7B2 is a naturally occurring inhibitor of the prohormone convertase PC2. *Proc. Nat. Acad. Sci.* 91, 5784-5785. PMID: 8016065
41. **Lindberg, I.** (1994) Evidence for cleavage of the PC1/PC3 prosegment in the endoplasmic reticulum. *Mol. Cell. Neurosci.* 5, 263-268. PMID: 8087424
42. Zhou, Y., and **Lindberg, I.** (1994) Enzymatic properties of carboxy-terminally truncated prohormone convertase 1 (PC1/PC3). *J. Biol. Chem.* 269, 18408-18413. PMID: 8034588
43. **Lindberg, I.**, Ahn, S.C., and Breslin, M.B. (1994) Cellular distributions of the prohormone processing enzymes PC1 and PC2. *Mol. Cell. Neurosci.* 5, 614-622. PMID: 7704436
44. **Lindberg, I.**, Van den Hurk, W.H., Bui, C.B., and Batie, C.J. (1995) Enzymatic characterization of immunopurified prohormone convertase PC2: potent inhibition by a 7B2 peptide fragment. *Biochemistry* 34, 5486- 5493. PMID: 7727407
45. Rothenberg, M.E., Eilertson, C.D., Klein, K., Zhou, Y., **Lindberg, I.**, McDonald, J.K., and Noe, B.D. (1995) Processing of mouse proglucagon by recombinant PC1 and PC2. *J. Biol. Chem.* 270, 10136-10146. PMID: 7730317
46. Van Horssen, A. M., Van den Hurk, H., Bailyes, E.M., Hutton, J.C., Martens, G.J.M., and **Lindberg, I.** (1995) Identification of the region within the neuroendocrine polypeptide 7B2 responsible for the inhibition of prohormone convertase 2. *J. Biol. Chem.* 270, 14292-14296. PMID: 7782286
47. Zhu, X., and **Lindberg, I.** (1995) 7B2 facilitates the maturation of proPC2 in neuroendocrine cells and is required for the expression of enzymatic activity. *J. Cell Biol.* 129, 1641-1650. PMID: 7790360
48. Zhou, Y., Rovere, C., Kitabgi, P., and **Lindberg, I.** (1995) Mutational analysis of PC1 in PC12 cells: 66 kDa PC1 is fully functional. *J. Biol. Chem.* 270, 24702-24706. PMID: 7559585
49. Johanning, K., Mathis, J.P., and **Lindberg, I.** (1996) Role of the prohormone convertase PC2 in proenkephalin processing: antisense and overexpression studies. *J. Neurochem.* 66, 898-907. PMID: 8910386
50. Zhu, X., Rouille, Y., Lamango, N. S., Steiner, D. F., and **Lindberg, I.** (1996) Internal cleavage of the PC2

inhibitor 7B2 CT peptide: a potential inactivation mechanism. *Proc. Natl. Acad.Sci.* 93, 4919-4924. PMID: 8643504

51. Lamango, N., Zhu, X., and **Lindberg, I.** (1996) Purification and enzymatic characterization of recombinant PC2: stimulation of activity by 21 kDa 7B2. *Arch. Biochem. Biophysics* 330, 238-250. PMID: 8660652

52. Zhu, X., Lamango, N.S., and **Lindberg, I.** (1996) Involvement of a polyproline helix-like structure in the interaction of 7B2 with prohormone convertase 2. *J. Biol. Chem.* 271, 23582-23587. PMID: 8798569

53. Johanning, K., Mathis, J.P., and **Lindberg, I.** (1996) Processing site blockade results in more efficient conversion of proenkephalin to active opioid peptides. *J. Biol. Chem.* 271, 27871-27878. PMID: 8910386

54. Muller, L., Zhu, X., and **Lindberg, I.** (1997) Mechanism of facilitation of PC2 maturation by 7B2: involvement in PC2 transport and activation, but not folding. *J. Cell. Biol.* 139, 625-638. PMID: 9348280

55. Zhu, X., Muller, L., Mains, R.E. and **Lindberg, I.** (1998) Structural elements of PC2 required for its interaction with its helper protein 7B2. *J. Biol. Chem.* 273, 829-836. PMID: 9422782

56. Day, R., Lazure, C., Basak, A. Boudreault, A., Limperis, P., Dong, W., and **Lindberg I.** (1998) Prodynorphin processing by proprotein convertase 2 (PC2): cleavage at single basic residues and enhanced processing in the presence of carboxypeptidase. *J. Biol. Chem.* 273, 1153- 1164. PMID: 9422738

57. **Lindberg, I.**, Tu, B., Muller, L., and Dickerson, I. (1998) Cloning and functional analysis of *C. elegans* 7B2. *DNA and Cell Biol.* 17, 727-734. PMID: 9726255

58. Apletalina, E., Appel, J., Lamango, N.S., Houghten, R., and **Lindberg, I.** (1998) Identification of potent inhibitors of prohormone convertases 1 and 2 using a peptide combinatorial library. *J. Biol. Chem.* 273, 26589-26595. PMID: 9756897

59. Johanning, K., Juliano, M.A., Juliano, L., Lazure, C., Lamango, N., Steiner, D.F., and **Lindberg, I.** (1998) Specificity of prohormone convertase 2 on proenkephalin and proenkephalin-related fluorogenic peptides. *J. Biol. Chem.* 273, 22672-22680. PMID: 9712897

60. Lamango, N.S., Apletalina, E., Liu, J., and **Lindberg, I.** (1999) The proteolytic maturation of prohormone convertase 2 (proPC2) is a pH-driven process. *Arch. Biochem. Biophys.* 362, 275-282. PMID: 9989936

61. Westphal, C.H., Muller, L., Zhou, A., Zhu, X., Bonner-Fraser, S., Schambelan, M., Steiner, D.F., **Lindberg, I.***, and Leder, P.* (1999) The neuroendocrine protein 7B2 is required for peptide hormone processing *in vivo* and provides a novel mechanism for pituitary Cushing's disease. *Cell* 96, 689-700. (*co-senior authors) PMID: 10089884

62. Muller, L., Zhu, P. Juliano, M.A., Juliano, L., and **Lindberg, I.** (1999) A 36-residue peptide contains all of the information required for 7B2-mediated activation of proPC2. *J. Biol. Chem.* 274, 21471-21477. PMID: 10409712

63. Fortenberry, Y., Liu, J., and **Lindberg, I.** (1999) The role of the CT peptide in the inhibition of PC2 *in vivo*. *J. Neurochemistry*, 73, 994-1003. PMID: 10461888

64. Apletalina, E., Juliano, M. A., Juliano, L., and **Lindberg, I.** (2000) Structure-function analysis of the 7B2 CT peptide: mechanism of inhibition of PC2. *Biochem. Biophys. Res. Commun.* 267, 940-942. PMID: 10673395

65. Apletalina, E., Muller, L., and **Lindberg, I.** (2000) Mutations in the catalytic domain of prohormone convertase 2 result in loss of binding to 7B2 and inhibition with 7B2 CT peptide. *J. Biol. Chem.* 275, 14667-14677. PMID: 10799554

66. Hwang, J.R., Siekhaus, D., Fuller, R.S., Taghert, P., and **Lindberg, I.** (2000) Characterization of prohormone convertase 2 and 7B2 from *Drosophila melanogaster*. *J. Biol. Chem.* 275, 17886-17893. PMID: 10749852

67. Cameron, A., Fortenberry, Y., and **Lindberg, I.** (2000) The SAAS granin exhibits functional homology to 7B2 and contains a highly potent hexapeptide inhibitor against PC1. *FEBS Lett.* 473, 135-138. PMID: 10812060
68. Cameron, A., Appel, J., Houghten, R.A. and **Lindberg, I.** (2000) Polyarginines are potent furin inhibitors. *J. Biol. Chem.* 275, 36741-36749. PMID: 10958789
69. Muller, L.*, Cameron, A.*, Apletalina, E., Fortenberry, Y., and **Lindberg, I.** (2000) Processing and sorting of the prohormone convertase 2 propeptide. *J. Biol. Chem.* 275, 39213- 39222. (*these authors contributed equally to the work) PMID: 10995742
70. Sayah, M., Fortenberry, Y., Cameron, A., and **Lindberg, I.** (2001) Distribution and enzymatic generation of proSAAS-derived peptides. *J. Neurochem.* 76, 1833-1841. PMID: 11259501
71. Hwang, J.R. and **Lindberg, I.** (2001) Inactivation of the 7B2 inhibitory CT peptide depends on a functional furin cleavage site. *J. Neurochem.* 79, 437-44. PMID: 1167727
72. Zachariah, C., Cameron, A., **Lindberg, I.**, Kao, K.J., Beinfeld, M., and Edison, A. (2001) Structural studies of a neuropeptide precursor protein with an RGD proteolytic site. *Biochemistry* 40, 8790-8799. PMID: 11467939
73. Rehfeld, J.F., **Lindberg, I.**, Friis-Hansen, L. (2002) Progastrin-derived peptides differ in 7B2 and PC2 knockout animals: a role for 7B2 independent of action on PC2. *FEBS Lett.* 510, pp. 89-9382. PMID: 11755537
74. Fortenberry, Y., Hwang, J.R., Apletalina, E.V., **Lindberg, I.** (2002) Functional characterization of proSAAS: similarities and differences with 7B2. *J. Biol. Chem.* 277, 5175-5186. PMID: 11719503
75. Sarac, M., Windeatt, S., Castro, M., and **Lindberg, I.** (2002) Intrapituitary adenoviral administration of 7B2 reverses endocrinological deficiencies in 7B2 null mice. *Endocrinology* 143, 2314-23. PMID: 1202119
76. Sarac, M., Zieske, A.W., and **Lindberg, I.** (2002). The lethal form of Cushing's in 7B2 null mice is due to multiple metabolic and hormonal abnormalities. *Endocrinology*, 143, 2324-32. PMID: 12021197
77. Laurent, V., Kimble, A., Peng, B., Zhu, P., Pintar, J., Steiner, D.F. and **Lindberg, I.** (2002) Mortality in 7B2 null mice can be rescued by adrenalectomy: involvement of dopamine in ACTH hypersecretion. *Proc. Natl. Acad. Sci. USA* 99, 3087. PMID: 11854475
78. Zhu, X., Zhou, A., Dey, A., Norrbom, C., Carroll, R., Zhang C., Laurent V., **Lindberg, I.**, Ugleholdt, R., Holst, J.J., Steiner, D.F. (2002) Disruption of PC1/3 expression in mice causes dwarfism and multiple neuroendocrine peptide processing defects. *Proc. Natl. Acad. Sci. USA* 99, 10293-10298. PMID: 12145326
79. Laurent, V., and **Lindberg, I.** (2002) Mini-RIA: adaptation of conventional [¹²⁵I] radioimmunoassay to a 96-tube format. *Analytical Biochemistry* 309, 143-149. PMID: 12381373
80. Sarac, M.S., Cameron, A., **Lindberg, I.** (2002) The furin inhibitor hexa- D-arginine blocks the activation of *Pseudomonas aeruginosa* exotoxin A *in vivo*. *Infection and Immunity* 70, 7136-7139. PMID: 12438396
81. Laslop, A., Becker, A., **Lindberg, I.**, Fischer-Colbrie, R. (2002) Proteolytic processing of chromogranins is modified in brains of transgenic mice. *Ann N. Y. Acad. Sci.* 971, 49-52. PMID: 12438088
82. Rehfeld, J.F., **Lindberg, I.** and Friis-Hansen, L. (2002) Increased synthesis but decreased processing of neuronal proCCK in PC2 and 7B2 knockout animals. *J. Neurochem.* 83, 1329-37. PMID: 12472887
83. Li, Q.L., Naqvi, L., **Lindberg, I.**, and Friedman, T.C. (2003) Prohormone convertase 2 (PC2) enzymatic activity and its regulation in endocrine cells. *Regul. Pept.* 110, 197-205. PMID: 12573800
84. Cornwall, G.A., Cameron, A., **Lindberg, I.**, Hardy, D.M., and Hsia, N. (2003) CRES inhibits the serine protease prohormone convertase 2. *Endocrinology* 144, 901-8. PMID: 12586766
85. Henrich, S., Cameron, A., Bourenkov, G.P., Kiefersauer, R., Huber, R., **Lindberg, I.**, Bode, W., and Than, M.E. (2003) The crystal structure of the proprotein processing proteinase furin explains its stringent specificity. *Nature Structural Biology* 10, 520-526. PMID: 12794637

86. Peinado, J.R., Li, H., Johanning, K., and **Lindberg, I.** (2003) Cleavage of recombinant proenkephalin and blockade mutants by prohormone convertases 1 and 2: an *in vitro* specificity study. *J. Neurochem.* 87, 868-78. PMID: 14622118
87. Winsky-Sommerer, R., Grouselle, D., Rougeot, C., Laurent, V., David, J.P., Delacourte, A., Dournaud, P., Seidah, N.G., **Lindberg, I.**, Trottier, S., and Epelbaum, J. (2003) The proprotein convertase PC2 is involved in the maturation of prosomatostatin to somatostatin-14 but not in the somatostatin deficit in Alzheimer's disease. *Neuroscience* 122, 437-47. PMID: 14614908
88. Laurent, V., Jaubert-Miazza, L., Desjardins, R., Day, R., and **Lindberg, I.** (2004) Biosynthesis of POMC-derived peptides in prohormone convertase 2 and 7B2 null mice. *Endocrinology*, 145, 519-28. PMID: 14576186. PMID: 14576186
89. Sarac, M.S., Peinado, J.R., Leppla, S.H., and **Lindberg, I.** (2004) Protection against anthrax toxemia by hexa-D-arginine *in vitro* and *in vivo*. *Infection and Immunity* 72, 602-605. PMID: 14688144
90. Kacprzak, M., Peinado, J.R., Than, M., Appel, J., Henrich, S., Bode, W., Houghten, R.A., and **Lindberg, I.** (2004) Inhibition of furin by polyarginine-containing peptides: nanomolar inhibition by nona-D-arginine. *J. Biol. Chem.* 279, 36788-94 PMID: 15197180
91. Lee S.N., Prodhomme, E., and **Lindberg, I.** (2004) Prohormone convertase 1 (PC1) processing and sorting: effect of PC1 propeptide and proSAAS. *J. Endocrinol.* 182, 353-364. PMID: 15283695
92. Peinado, J.R., Kacprzak, M., Leppla, S.H., and **Lindberg, I.** (2004) Cross-inhibition between furin and lethal factor inhibitors. *FEBS Lett.* 321, 601-605. PMID: 15358148
93. Henrich, S. **Lindberg, I.**, Bode, W., and Than, M.E. (2004) Proprotein convertase models based on the crystal structures of furin and kexin: explanation of their specificity. *J. Biomol. Structure* 345, 211-27. PMID: 15571716
94. Peinado, J.R.*, Laurent, V.*, Lee, S.N., Peng, B.W., Pintar, J.E., Steiner, D.F. and **Lindberg, I.** (2005) Strain-dependent influences on the hypothalamo-pituitary-adrenal axis profoundly affect the 7B2 null phenotype. (*co-first authors) *Endocrinology* 146, 3438-44. PMID: 15878971
95. Kacprzak, M.M., Than, M.E., Juliano, L., Juliano, M.A., Bode, W., and **Lindberg, I.** (2005) Mutagenesis of the PC2 substrate binding pocket alters enzyme specificity. *J. Biol. Chem.* 280, 31850-8. PMID: 16002408
96. Shiryayev, S.A., Ratnikov, B.I., Chekanov, A.V., Sikora, S., Rozanov, D.V., Godzik, A., Wang, J., Smith, J.W., Huang, Z., **Lindberg, I.**, Samuel, M.A., Diamond, M.S., and Strongin, A.Y. (2006) The cleavage targets and the (D)-arginine-based inhibitors of the West Nile virus NS3 processing proteinase. *Biochemistry* 393, 503-11. PMID: 16229682
97. Lee, S.N., Hwang, J.R., and **Lindberg, I.** (2006) The neuroendocrine protein 7B2 can be inactivated by phosphorylation within the secretory pathway. *J. Biol. Chem.* 281, 3312-20. PMID: 16286464
98. Ozawa A., Cai, Y., and **Lindberg I.** (2007) Production of bioactive peptides in an *in vitro* system. *Analytical Biochem.* 366:182-9. PMID: 17540328
99. Lee, S.N., Peng, B., Desjardins, R., Pintar, J.E., Day, R., and **Lindberg, I.** (2007) Strain-specific steroidal control of pituitary function. *J. Endocrinol.* 192: 515-25. PMID: 17332521
100. Fugere, M., Appel, J., Houghten, R.A., **Lindberg, I.**, and Day, R. (2007) Short polybasic peptide sequences are potent inhibitors of PC5/6 and PC7: use of PS-SPCL as a tool for the optimization of inhibitory sequences. *Molecular Pharmacology* 71, 323-332. PMID: 17012622
101. Lee, S.N., Kacprzak, M.M., Day, R., and **Lindberg I.** (2007) Processing and trafficking of a prohormone convertase 2 active site mutant. *Biochem. Biophys. Res. Commun.* 355, 825-9. PMID: 17320043
102. Waha, A., Koch, A., Hartmann, W., Milde, U., Felsberg, J., Hübner, A., Mikeska, T., Goodyer, C.G., Sörensen, N., **Lindberg, I.**, Wiestler, O.D., Pietsch, T, Waha, A. (2007) SGNE1/7B2 is epigenetically altered and transcriptionally downregulated in human medulloblastomas. *Oncogene* 26: 5662-8. PMID: 17334394

103. Lee, S.N. and **Lindberg, I.** (2008) 7B2 prevents unfolding and aggregation of prohormone convertase 2. *Endocrinology* 149: 4116-27. PMID: 18467442
104. Farber, C.R., Chitwood, J., Lee, S.N., Verdugo, R., Islas-Trejo, Rincon, A.G., **Lindberg, I.** and Medrano, J.F. (2008) Overexpression of *Scg5* increases enzymatic activity of *Pcsk2* and is negatively correlated with weight gain in congenic mouse models. *BMC Genet.* 9:34. PMID: 18439298
105. Kudo, H., Liu, J., Roubos, E., Ozawa, A., Panula, P. Martens, G.J.M., and **Lindberg, I.** (2009) Identification of proSAAS homologs in lower vertebrates: conservation of hydrophobic helices and convertase-inhibiting sequences. *Endocrinology* 150:1393-9. PMID: 18948394
106. Kowalska, D., Liu, J., Appel, J.R., Ozawa, A., Nefzi, A., Mackin, R.B., Houghten, R.A., and **Lindberg, I.** (2009) Synthetic small molecule prohormone convertase 2 inhibitors. *Mol. Pharmacol.* 75: 617-25.
107. Ozawa, A., Speaker, R.B., and **Lindberg, I.** (2009) Enzymatic characterization of an HEL cell acyltransferase activity. *PLoS One* 4(5):e5426. PMID: 19412546
108. Izidoro, M.A., Gouvea, I.E., Santos, J.A., Assis, D.M., Oliveira, V., Judice, W.A., Juliano, M.A., **Lindberg, I.**, and Juliano, L. (2009) A study of human furin specificity using synthetic peptides derived from natural substrates: effects of potassium ions. *Arch. Biochem. Biophys.* 487:105-14. PMID: 19477160
109. Becker, G.L., Sielaff, F., Than, M.E., **Lindberg I.**, Routhier, S., Day, R., Lu, Y., Garten, W., and Steinmetzer, T. (2009) Potent inhibitors of furin and furin-like proprotein convertases containing decarboxylated P1 arginine mimetics. *J. Med Chem.* 53: 1067-75. PMID: 20038105
110. Izidoro, M.A., Assis, D.A., Oliveira, V., Santos, J.A.N., Juliano, M.A., **Lindberg, I.**, and Juliano, L. (2010) Effect of magnesium ions on recombinant human furin: selective activation of hydrolysis of substrates derived from virus envelope glycoproteins. *Biol. Chem.* 391: 1105-12. PMID: 19477160
111. Ozawa, A., Peinado, J.R., and **Lindberg, I.** (2010) Modulation of prohormone convertase 1/3 properties using site-directed mutagenesis. *Endocrinology* 151: 4437-45. PMID: 20610561
112. Ozawa, A., **Lindberg, I.**, Roth, B.A., and Kroeze, W. (2010) "Deorphanization of novel peptides and their receptors." *AAPS J.* 12:378-84. PMID: 20446073
113. Hoshino, A., Kowalska, D., Jean, F., Lazure, C., and **Lindberg, I.** (2011) Modulation of PC1/3 activity by self-interaction and substrate binding. *Endocrinology*, 152:1402-11 PMID:21303942
114. Sielaff, F., Than, M.E., Bevec, D., **Lindberg, I.**, and Steinmetzer, T. (2011) New furin inhibitors based on weakly basic amidinohydrazones. *Bioorg. Med. Chem. Lett.* 21: 836-40. PMID: 21168329
115. Ozawa, A., Lick, A.N., and **Lindberg, I.** (2011) Processing of augurin is required to suppress proliferation of tumor cell lines. *Mol. Endocrinol.* 25:776-84. PMID: 21436262
116. Helwig, M., Vivoli, M., Fricker, L.D., and **Lindberg I.** (2011) Regulation of neuropeptide processing enzymes by catecholamines in endocrine cells. *Mol. Pharmacol.* 80:304-13. PMID: 21540292
117. Helwig, M., Lee, S-N., Hwang, J.R., Ozawa, A., Medrano, J.F., and **Lindberg, I.** (2011) Dynamic modulation of PC2-mediated precursor processing by 7B2. *J. Biol. Chem.* 286:42504-13. PMID: 22013069
118. Kuester, M., Becker, G.L., Hards, K., **Lindberg, I.**, Steinmetzer, T., Than, M.E. (2011) Purification of the proprotein convertase furin by affinity chromatography based on PC-specific inhibitors. *Biol Chem.* 392: 973-81. PMID:21875402 PMCID: PMC3791315
119. Toll, L., Khroyan, T.V., Sonmez, K., Ozawa, A., **Lindberg, I.**, McLaughlin, J.P., Eans, S.O., Shahien, A.A, and Kapusta, D.R. (2012) Peptides derived from the prohormone proNPQ/Spexin are potent central modulators of cardiovascular and renal function and nociception. *FASEB J.* 26(2):947-54. PMID: 22038051
120. Vivoli, M., Caulfield, T.R., Martínez-Mayorga, K., Johnson, A.T., Jiao, G.-S. and **Lindberg, I.** (2012) Inhibition of PC1/3 and PC2 by 2,5-dideoxystreptamine derivatives. *Mol. Pharmacol.* 81(3):440-54. PMID: 22169851

121. Becker, G.L., Lu Y., Hards, K., Strehlow, B., Levesque, C., **Lindberg, I.**, Sandvig, K., Bakowsky, U., Day, R., Garten, W., and Steinmetzer, T. (2012) Highly potent inhibitors of the proprotein convertase furin as potential drugs for the treatment of infectious diseases. *J. Biol. Chem.* 287(26):21992-2003 PMID: 22539349
122. Yuan B., Feng J.Q., Bowman, S., Ying, L., Blank, R.D., **Lindberg, I.**, and Drezner, M.K. (2012) Hexa-D-Arginine treatment increases 7B2-PC2 activity in *hyp* mouse osteoblasts and rescues the *hyp* phenotype. *J. Bone and Mineral Res* 28(1):56-72. PMID: 22886699
123. Dasgupta, I.*, Sanglas, L.*, Enghild, J. and **Lindberg I.** (2012) The neuroendocrine protein 7B2 is an intrinsically disordered protein. (*co-first authors) *Biochemistry* 51(38):7456-64. PMID:22947085
124. Zhu, J., Declercq, J., Roucourt, B., Ghassabeh, G.H., Meulemans, S., Kinne, J., David, G., Vermorken, A.J., Van de Ven, W.J., **Lindberg, I.**, Muyldermans, S., and Creemers, J.W. (2012) Generation and characterization of non-competitive furin-inhibiting nanobodies. *Biochem. J.* 448(1):73-82. PMID: 22920187
125. Pickett, L.A., Yourshaw, M., Chen, Z., Solorzano-Vargas, R.S., Nelson, S.F., Martín, M.G., and **Lindberg, I.** (2013) Functional consequences of a novel variant of *PCSK1*. *PLoS One* 8(1):e55065. doi: 10.1371/journal.pone.0055065. PMID: 23383060; PMCID: PMC3557230
126. Helwig, M., Hoshino, A., Berridge, C., Lee, S.N., Lorenzen, N., Otzen, D., Eriksen, J., and **Lindberg, I.** (2013) The neuroendocrine protein 7B2 suppresses neurodegenerative disease-related protein aggregation. *J. Biol. Chem.* 288:1114–1124. PMID: 23172224 PMCID: PMC3542996
127. Yongye, A.B., Vivoli, M., **Lindberg, I.**, Appel, J.R., Houghten, R.A., Martinez-Mayorga, K. (2013) Identification of a small molecule that selectively inhibits mouse PC2 over mouse PC1/3: A computational and experimental study. *PLoS One* 2013;8(2):e56957. PMID:23451118
128. Martín, M.G., **Lindberg, I.**, Solorzano-Vargas, R.S., Wang, J., Avitzur, Y., Bandsma, R., Sokollik, C., Lawrence, S., Pickett, L.A., Chen, Z., Egritas, O., Dalgic, B., Albornoz, V., de Ridder, L., Hulst, J., Gok, F., Aydoğan, A., Al-Hussaini, A., Gok, D.E., Yourshaw, M., Wu, S.V., Cortina, G., Stanford, S., and Georgia, S. (2013) Congenital proprotein convertase 1/3 deficiency causes malabsorptive diarrhea and other endocrinopathies in a pediatric cohort. *Gastroenterology* 45:138-48 PMCID:PMC3719133 PMID: 23562752
129. Yourshaw, M., Solorzano-Vargas, R.S., Pickett, L.A., **Lindberg, I.**, Wang, J., Cortina, G., Baron, H., Nelson, S.F., and Martín, M.G. (2013) Exome sequencing finds a novel *PCSK1* mutation in a child with generalized malabsorptive diarrhea and diabetes insipidus. *J. Pediatric Gastroenterology & Nutrition.* 57:759-67. PMCID: PMC4170062 PMID: 24280991
130. Peinado, J.R., Sami, F., Rajpurohit, N., and **Lindberg, I.** (2013) Blockade of islet amyloid polypeptide fibrillation and cytotoxicity by the secretory chaperones 7B2 and proSAAS. *FEBS Lett.*, Nov 1;587(21):3406-11. PMID: 24042052
131. Hoshino, A., Helwig, M., Rezaei, S., Berridge, C., Eriksen, J.L., and **Lindberg, I.** (2013) A novel function for proSAAS as an amyloid anti-aggregant in Alzheimer's disease. *J. Neurochem.* 128(3):419-30. PMID: 24102330 PMCID: PMC3946950
132. Prabhu, Y., Blanco, E.H., Liu, M., Peinado, J.R., Wheeler, M., Gekakis, N., Arvan, P. and **Lindberg, I.** (2014) Defective transport of the obesity mutant PC1/3 N222D contributes to loss of function. *Endocrinology* 155(7):2391-401 PMID: 24828610
133. Blanco, E.H., Peinado, J.R., Martín, M.G., and **Lindberg, I.** (2014) Biochemical and cell biological properties of the human prohormone convertase 1/3 Ser357Gly mutation: a PC1/3 hypermorph. *Endocrinology* 55(9):3434-47 PMID: 24932808
134. Liew, C.W., Assmann, A., Templin, A.T., Raum, J.C., Lipson, K.L., Rajan, S., Qiang, G., Hu, J., Kawamori, D., **Lindberg, I.**, Philipson, L.H., Sonenberg, N., Goldfine, A.B., Stoffers, D.A., Mirmira, R.G., Urano, F., and Kulkarni, R.N. (2014) Insulin regulates carboxypeptidase E by modulating translation initiation scaffolding protein eIF4G1 in pancreatic β cells. *Proc. Natl. Acad. Sci. USA.* 111(22):E2319-28. PMID: 24843127

135. **Lindberg, I.**, Pang, H.W., Stains, J.P., Clark, D., Yang, A.J., Bonewald, L., and Li, K.Z. (2014) FGF23 is endogenously phosphorylated in bone cells. *J. Bone Mineral Res.*, 30(3):449-54. PMID: 25195776
136. Wilschanski, M., Abbassi, M., Blanco, E., **Lindberg, I.**, Yourshaw, M., Zangen, D., Berger, I., Shteyer, E., Pappo, O., Baroz, B. Martín, M.G. and Elpeleg, O. (2014) A novel familial mutation in the *PCSK1* gene that alters the oxyanion hole residue of proprotein convertase 1/3 and impairs its enzymatic activity. *PLoS One* Oct 1;9(10):e108878 PMID:25272002
137. Ramos-Molina, B., and **Lindberg, I.** (2015) Phosphorylation and alternative splicing of 7B2 reduce prohormone convertase 2 activation. *Mol. Endocrinol.* 29:756-64. PMID:25811241
138. Harges, K., Becker, G., Lu, Y., Dahms, S.O., Köhler, S., Beyer, W., Sandvig, K., Yamamoto, H., **Lindberg, I.**, Walz, L., von Messling, V., Than, M.E., Garten, W., and Steinmetzer, T. (2015) Novel furin inhibitors with potent anti-infectious activity. *ChemMedChem* 10:1218-31 PMID:25974265
139. Ramos-Molina, B., Lick, A. N., Blanco, E.H., Posada-Salgado, A., Martinez-Mayorga, K., Johnson, A.T., Jiao, G.S., and **Lindberg, I.** (2015) Identification of potent and compartment-selective small molecule furin inhibitors using cell-based assays. *Biochem. Pharmacol.* 96:107-18 PMID:26003844
140. Ramos-Molina, B., Lick, A.N., Shirazi, A.N., Oh, D., Tiwari, R., El-Sayed, N.S., Parang, K., and **Lindberg, I.** (2015) Cationic transfection reagents are potent furin inhibitors. *PloS One* 10(6):e0130417. PMID: 26110264
141. Blanco, E.H., Ramos-Molina, B. and **Lindberg, I.** (2015) Revisiting PC1/3 mutants: dominant-negative effect of endoplasmic reticulum-retained mutants. *Endocrinology* 156:3625-37. PMID: 26207343
142. **Lindberg, I.**, Shorter, J., Wiseman, R.L., Chiti, F., Dickey, C.A., and McLean, P.J. (2015) Chaperones in neurodegeneration. *J. Neurosci.*, 35:13853-9. PMID: 26468185
143. Yamamoto, H., Ramos-Molina, B., Lick, A.N., Prideaux, M., Albornoz, V., Bonewald, L., and **Lindberg, I.** (2016) Posttranslational processing of FGF23 in osteocytes during the osteoblast to osteocyte transition. *Bone* 84:120-130. PMID: 26746780
144. Jarvela, T., Lam, H.A., Helwig, M., Lorenzen, N., Otzen, D.E., McLean, P.J., Maidment, N.T. and **Lindberg, I.** (2016) The neural chaperone proSAAS blocks α -synuclein fibrillation and neurotoxicity. *Proc. Natl. Acad. Sci.* 9;113:E4708-15 PMID: 27457957
145. Harges, K., Ivanova, T., Thaa, B., McInerney, G.M., Klock, T.I., Sandvig, K., Künzel, S., **Lindberg, I.**, and Steinmetzer, T. (2017) Elongated and shortened peptidomimetic inhibitors of the proprotein convertase furin. *ChemMedChem.* 12(8):613-620. PMID:28334511
146. Winters, A.*, Ramos-Molina, B.*, Jarvela. T.S., Yerges-Armstrong, L., Pollin, T.I., and **Lindberg, I.** (2017) Functional analysis of *PCSK2* coding variants: a founder effect in the Old Order Amish population. *Diabetes Res. and Clinical Practice.* 131:82-90 *Co-first authors. PMID:28719828
147. Katorcha, E., Makarava, N., Lee, Y.J., **Lindberg, I.**, Monteiro, M.J., Kovacs, G.G., and Baskakov, I.V. (2017) Cross-seeding of prions by aggregated α -synuclein leads to transmissible spongiform encephalopathy. *PLoS Pathog.* 13(8): PMID: 28797122
148. Ivanova, T., Kallis, S., Than, M.E., Kunzel, S., Bottcher-Friedbertshauser, E., **Lindberg, I.**, Jiao, G.S., Bartenshlager, R., and Steinmetzer, T. (2017) Optimization of substrate-analogue furin inhibitors. *ChemMedChem.* 12(23):1953-1968. PMID:29059503
149. Jarvela, T.S., Womack, T., Georgiou, P., Gould, T., Eriksen, J.L. and **Lindberg, I.** (2018) 7B2 chaperone knockout in APP model mice results in reduced plaque burden. *Sci Reports* 8(1):9813. PMID: 29955078
150. Lam van, T.V., Ivanova, T., Harges, K., Heindl, M.R., Morty, R.E., Böttcher-Friebertshäuser, E., **Lindberg, I.**, Than, M.E., Dahms, S.O., and Steinmetzer, T. (2019) Design, synthesis and characterization of new macrocyclic inhibitors of the proprotein convertase furin. *ChemMedChem.* 14(6):673-685. PMID: 30680958

151. Jarvela, T.S., Gahlot, S., Shakya, M., Bachor, T., White, A., Low, M.J., and **Lindberg, I.** (2019) Reduced stability and pH-dependent activity of a common obesity-linked *PCSK1* polymorphism, N221D. *Endocrinology* 160(11):2630-2645. PMID: 31504391
152. **Lindberg I.** and Glembotski C.C. (2019) Physiological control of signaling in the absence of amidated peptides. (Invited Commentary) *Proc. Natl. Acad. Sci.*, 116(40):19774-19776. PMID: 31515450
153. Pedrero-Prieto, C.M., García-Carpintero S., Aguilera García, C., Frontiñán-Rubio, J., Alcaín, F.J., **Lindberg, I.**, Durán-Prado, M., Peinado, J.R.,* and Rabanal-Ruiz, Y.* (2020) Widely distributed biomarkers of Alzheimer's disease in CSF. A comprehensive meta-analysis of existing proteomic studies. *Co-senior authors. *Clin. Proteomics*. 17:21 PMID: 32518535
154. Shakya, M., Yildirim, T., and **Lindberg, I.** (2020) Increased expression and retention of the secretory chaperone proSAAS following cell stress. *Cell Stress and Chaperones* 25(6), 929-941 PMID: 32607937
155. Chaplot, K., Jarvela, T.S., and **Lindberg, I.** (2020) "Secreted chaperones in neurodegeneration." *Frontiers in Aging Neuroscience*. <https://doi.org/10.3389/fnagi.2020.00268> PMID: 33192447
156. Jarvela, T.S., Chaplot, K., and **Lindberg, I.** (2021) A protease protection assay for the detection of internalized alpha-synuclein pre-formed fibrils. *PlosOne* 26;16(1):e0241161. PMID: 33497415
157. Shakya, M., Gahlot, S., White, A., Verchere, C.B., Low, M. J. and **Lindberg, I.** (2021) Mice lacking PC1/3 expression in POMC-expressing cells do not develop obesity. *Endocrinology*, 2021 Mar 10:bqab055. doi: 10.1210/endocr/bqab055. PMID: 33693631
158. Shakya, M., and **Lindberg, I.** (2021) "Mouse models of human proprotein convertase insufficiency." *Endocrine Reviews*, doi: 10.1210/endrev/bnaa033. PMID: 33382413.
159. **Lindberg, I.** and Fricker, L.D. (2021) (invited mini-review) "Obesity, POMC, and POMC-processing enzymes: surprising results from animal models." *Endocrinology*, Dec1;162(12). PMID: 34333593
160. Shakya, M.*, Gahlot, S.*, Martin, N.K., Arunagiri, A., Martin, M.G., Arvan, P., Low, M.J., and **Lindberg, I.** (2022) The G209R *Pcsk1* mutant mouse as a model for human *PCSK1* polyendocrinopathy. (*, co-first authors) *Endocrinology* Mar 4;163(5):bqac024. doi: 10.1210/endocr/bqac02 PMID: 35245347
161. **Lindberg, I.***, Shu, Z.*, Lam, H.*, Helwig, M., Yucer, N., Laperle, A., Svendsen, C., Di Monte, D.A. and Maidment, N.T. (2022) The proSAAS chaperone provides neuroprotection and attenuates transsynaptic α -synuclein spread in rodent models of Parkinson's disease. (*, co-first authors) *J. Parkinson's Disease*, doi: 10.3233/JPD-213053 PMID: 35527562
162. Peinado, J.R.*, Chaplot, K.*, Jarvela, T.S., Barbieri E.M, Shorter, J. and **Lindberg, I.** (2022) Sequestration of TDP-43(216-414) aggregates by cytoplasmic expression of the proSAAS chaperone. (*, co-first authors) *ACS Chemical Neuroscience*. Jun 1;13(11):1651-1665. doi: 10.1021/acscchemneuro.2c00156. PMID: 35549000
163. Van Lam, T., Ivanov, T., **Lindberg, I.**, Böttcher-Friebertshäuser, E., Steinmetzer, T. and Hards, K. (2022) Design, synthesis, and characterization of novel fluorogenic substrates of the proprotein convertases furin, PC1/3, PC2, PC5/6, and PC7. *Anal. Biochem.* 2022 Oct 15;655:114836. doi: 10.1016/j.ab.2022.114836. Epub 2022 Aug 11 PMID: 35964735
164. Iida, H.*, Kono, T.*, Lee, C.C., Krishnan, P., Arvin, M.C., Weaver, S.A., Jarvela, T.S., Bone, R.N., Tong, X., Arvan, P., **Lindberg, I.** and Evans-Molina, C. (2023) SERCA2 regulates proinsulin processing and processing enzyme maturation in the pancreatic β cell. (*, co-first authors) *Diabetologia* Nov;66(11):2042-2061. doi: 10.1007/s00125-023-05979-4. Epub 2023 Aug 4. PMID: 37537395
165. Mitias, S., Schaffer, N., Nair, S., Hook, C. and **Lindberg, I.** (2024) ProSAAS is preferentially upregulated during homeostatic scaling and reduces amyloid plaque burden in the 5xFAD mouse hippocampus. *J Neurochem*. Aug 8. doi: 10.1111/jnc.16193. PMID: 39115041
166. Schaffer, N., Mitias, S., Guo, Y., Bernstein, S.L., and **Lindberg, I.** (2025) The proSAAS chaperone is highly expressed in retinal neurons. *PLoS One* May 16;20(5):e0321867. PMID: 40378115

In revision

167. Zhu, W. Pan, L., Cui, X., Russo, A.C., Ray R., Pederson, B., Wei, X., Lin, L.L. Hafner, H., Gregg, V.B., Shrestha, N., Liu, C., Naji, A., Arvan, P.A., Sandoval, D.A., **Lindberg, I.**, Qi, L., and Reinert, R.B. (2025) SEL1L-HRD1 ER-Associated Degradation Facilitates Prohormone Convertase 2 Maturation and Glucagon Production in Islet α Cells. *bioRxiv* [Preprint]. 2025 Mar 20:2025.03.20.644437. *In revision for Nature Communications* PMID: 40166183

Invited letters and book chapters*Invited letters*

Lindberg, I. (2005) Balancing risk and recovery. *Science* **310**, 972. (*Post-disaster science recovery recommendation, based on Hurricane Katrina experience*)

Invited Book Chapters

1. **Lindberg, I.**, and Hutton, J. C. (1991) "Peptide processing proteinases with selectivity for paired basic amino acids." in The Biosynthesis of Peptide Hormones and Neurotransmitters (L.D. Fricker, Ed.) CRC Press, Boca Raton, FL.
2. **Lindberg, I.** and Zhou, Y. (1995) "Overexpression of neuropeptide precursors and processing enzymes" in "Peptidases and neuropeptide processing" in Methods in Neuroscience, Vol 23, 94-108. (A. Ian Smith, Ed.) Academic Press, Orlando, FL
3. **Lindberg, I.** (1996) "Polypeptide hormones: biosynthesis, processing, and secretion" in The Encyclopedia of Molecular Biology, VCH Press, Weinheim, Germany (R.A. Myers, Ed.)
4. Creemers, J.M.W., Bailyes, E.M., **Lindberg, I.**, and Hutton, J.C. (1999) "Proteolytic Processing" in Protein Expression- A Practical Approach (Eds. B.D. Hames and S.J. Higgins) Oxford University Press, Oxford, UK.
5. Muller, L., and **Lindberg, I.** (1999) "The cell biology of the prohormone convertases PC1 and PC2." in Progress in Nucleic Acids Research (K. Moldave, Ed.) Academic Press, San Diego, CA pp69-108
PMID: 10506829
6. Murray, S., Coste, S., **Lindberg, I.** and Stenzel-Poore, M. (2001) "Genetic mutants with dysregulation of corticotropin pathways." in Transgenic Models in Endocrinology (M. Castro, Ed.)
7. Cameron, A., Apletalina, E. and **Lindberg, I.** (2001) "The enzymology of prohormone convertases PC1 and PC2" in The Enzymes (R.E. Dalbey, Ed). Academic Press, San Diego, CA
8. **Lindberg, I.** and Appel, J. (2011) "Inhibitor screening of proprotein convertases using positional scanning libraries" in Methods in Molecular Biology #768: Proprotein Convertases (M. Mbikay, Ed). Springer Protocols, 768:155-66. PMID: 21805241
9. Vivoli, M. and **Lindberg, I.** (2012) "Prohormone convertase 1/3": in Handbook of Biologically Active Peptides. (A. Kastin, Ed). Academic Press.
10. Vivoli, M. and **Lindberg, I.** (2012) "Prohormone convertase 2": in Handbook of Biologically Active Peptides. (A. Kastin, Ed). Academic Press.
11. Hoshino A., and **Lindberg, I.** (2012) "The biochemistry and cell biology of prohormone convertases 1/3 and 2" in Neuropeptide Biosynthesis (E-Book) L. Devi and L.D. Fricker, Eds. Morgan and Claypool Life Sciences Publishers.
12. Peinado, J.R. and **Lindberg, I.** (2015) "Posttranslational modifications" Encyclopedia of Cell Biology. (Online Encyclopedia) G. Hart, Editor; Elsevier Press. (Updated 2022)
13. Ramos-Molina, B., Peinado J.R. and **Lindberg, I.** (2015) "Regulated proteolysis of signaling molecules: the proprotein convertases" in the series Encyclopedia of Cell Biology (Online Encyclopedia). J. Bond, Editor; Elsevier Press.

14. Ramos-Molina, B., Martin, M.G., and **Lindberg, I.** (2016) “*PCSK1* variants and human obesity”, vol. Genetics of Monogenic and Syndromic Obesity, in the series Progress in Molecular Biology and Translational Science. P. Michael Conn, Ed.; Academic Press. PMID:27288825

Other:

1. Fricker, L.Z., Mendel, G. and Patch-**Lindberg, I.** (1986) Behavioral effects of opiates in plants. Journal of Irreproducible Results, Vol. 31: p2-3.
2. **Lindberg, I.** (1989) Moon Plasmid (poem) in Trends in Biochemical Sciences, Vol 14, p222.
3. **Lindberg, I.** (2016) Cloning adherent mammalian cells with the agarose method. *YouTube video* <https://www.youtube.com/watch?v=IhOP397sCC8> (>6500 views on YouTube; many others on theLindbergLab website and on the Addgene blog site (invited presentation))
4. **Lindberg, I.** (2021) Aha! moments (ASBMB Today, May 13, 2021)