

CURRICULUM VITAE
SUSAN J. BASERGA, M.D., Ph.D.

EDUCATION

B.S. <i>summa cum laude</i> with honors in Biology	Yale College	1980
M. Phil. Dept. of Human Genetics	Yale University	1984
M.D. <i>cum laude</i>	Yale School of Medicine	1988
Ph.D. Dept. of Human Genetics	Yale University	1988

CAREER

1988-1993	Post-doctoral fellow, Dept. of Molecular Biophysics & Biochemistry, laboratory of Joan Steitz, Ph.D., Yale University, New Haven, CT
1993-1999	Assistant Professor, Depts. of Therapeutic Radiology and Genetics, Yale School of Medicine, New Haven, CT
1999-2002	Associate Professor (Term), Depts. of Therapeutic Radiology and Genetics, Yale School of Medicine, New Haven, CT
2002-2007	Associate Professor (Tenure), Depts. Of Molecular Biophysics & Biochemistry, Genetics and Therapeutic Radiology, Yale University, New Haven, CT
2007-	Professor, Depts. of Molecular Biophysics & Biochemistry, Genetics and Therapeutic Radiology, Yale University, New Haven, CT

ADMINISTRATIVE POSITIONS

1998-2009	Associate Director for Academic Development, Yale MD/PhD program, Yale School of Medicine
2002-present	Director of Medical Studies, Dept. of Molecular Biophysics & Biochemistry, Yale School of Medicine
2012-present	Program Director, Predoctoral Program in Cellular and Molecular, Yale University

PROFESSIONAL HONORS AND RECOGNITION

2016	William C. Rose Award from the American Society for Molecular Biology and Biochemistry
2014-2015	Bohmalk Scholar in Medical Research
2014	The Charles W. Bohmfalk Prize for basic science teaching at the Yale School of Medicine (also nominated in 2008, 2010)
2012	Elected, Connecticut Academy of Science and Engineering
2007	Folkers Lecture on Biomedical Research, Yale MD/PhD Program
1988-1991	Leukemia Society of America Fellow
1988	AOA, Yale School of Medicine
1988	Medical Scientist Training Program Award for outstanding academic achievement in the MD/PhD program, Yale School of Medicine
1988	Janet M. Glasgow Memorial Achievement Citation from the American Medical Women's Association for scholastic achievement, Yale School of Medicine
1980	Edgar J. Boell Prize for Excellence in Biology, Yale College
1979	Phi Beta Kappa, Yale College

FUNDING

ACTIVE

2 R01GM0115710	9/1/2015-5/31/2019
NIH/NIGMS	\$240,000

Susan J. Baserga, M.D., Ph.D., PI

Key factors in human ribosome biogenesis

The overall objective of this proposal is to determine the architecture and organization of some of the macromolecular assemblies involved in ribosome biogenesis in order to gain much needed mechanistic insights.

5 T32GM007223-41
NIH/NIGMS

07/01/15 – 06/30/20
\$1,368,408

Program Director: Susan J. Baserga, MD, PhD

Predoctoral Program in Cellular and Molecular Biology

This program continues to provide graduate students in several academic departments with rigorous experimental and intellectual training in a broad range of research projects that emphasize molecular and mechanistic approaches to studying basic biological questions.

Role: PD, trainer

T32 GM007223 Administrative Supplement
NIH/NIGMS

2016-2017
\$79,741

Susan J. Baserga, M.D., Ph.D. Program Director (PI)
Predoctoral Program in Cellular and Molecular Biology

1F30DK109582-01 Samuel Sondalle, PI
NIH/NIDDK

04/01/2016-03/31/2018

Probing the pathogenesis of North American Indian Childhood Cirrhosis
Role: Sponsor

TEACHING COMMITMENTS DISCHARGED

Director of Medical Studies, MB&B (since 2002)

MBB 550a and MBB 800a Molecules to Systems course (medical biochemistry)- Course Director, Lecturer and Conference Facilitator. The biochemistry portion of this course consists of 20 lectures and 11 biochemistry conference sections. I give 11 X 50 minute lectures. I am the Conference Section Facilitator for one of the MBB800a advanced biochemistry small group sections that meets 11 X 80 minutes. I have been Course Director and Lecturer since 2002 and Conference Facilitator in MBB800a since 2010.

MBB676b Responsible Conduct of Research-Course Director, lecturer-1 lecture on presenting data to the scientific community: manuscripts, databases and publication since 2002. I have been Course Director/Organizer since 2011.

MBB Qualifying Exam and Fellowship Writing Workshops-yearly 2002-2013, 2015

CBIO/GENE/MCDB 901b First Year Introduction to Research Ethics: Scientific Integrity in Biomedical Research-course director-led 8 X 1 hour sessions, yearly 1997-2007.

Laboratory trainees 2015 PH.D. students: Katie Farley (MB&B), Kat McCann (Genetics, graduated May 2015; received Honorable mention for Carolyn Slayman prize in Genetics), Lisa Ogawa (MB&B), Sam Sondalle (Genetics, MD/PhD program), Nicholas Vincent (Microbiology), Vincent Yip (MB&B).

Qualifying exam committees 2015- Tara Alpert (MB&B)

Thesis committees 2015- Daifei Liu (MB&B); Tenaya Vallery (MB&B); Minsun Jeong (Genetics); Tim Johnston (Genetics); Lynn Liu (MB&B); Dan Moonan (MB&B).

PROFESSIONAL SERVICE

Peer Review Groups/Grant Study sections

2016	Beckman Scholars Program Advisory Panel
2016	Women of Innovation Committee, Connecticut Technology Council

- 2015 Fellowship review panel for F05 U Cell Biology, Developmental Biology and Bioengineering, CSR, NIH
- 2015, 2011, 2009, 2005 Biochemistry Subject Examination for National Board of Medical Examiners-Reviewer
- 2013 Special Emphasis Panel for training grant review, NIGMS, NIH.
- 2012 Special Emphasis Panel for training grant review, NIGMS, NIH. Chair of review panel.
- 2011 NIH P41 review panel-National Resource for Automated Molecular Microscopy, The Scripps Research Institute, La Jolla, California
- 2007-2012 Member, Biomedical Research and Research Training (BRT-A) study section for training grant review, NIGMS, NIH
- 2006 Special Emphasis Panel for training grant review, NIGMS, NIH
- 2006 ad hoc grant reviewer for NIH Molecular Genetics A study section
- 2005 ad hoc grant reviewer for NIH Molecular Genetics A study section
- 1997-2008 Member, Research Careers in Minority Institutions Program, External Advisory Committee, University of Puerto Rico
- 1993-present ad hoc grant reviewer for the National Science Foundation (NSF); the Medical Research Council of Canada; the Netherlands Organization for Scientific Research, Wellcome Trust, The Austrian Science Fund, The Leverhulme Trust and the Medical Research Council, UK, The Swiss National Science Foundation
- 1992 Co-chair of a working group on the education of women in science (undergraduate through doctoral), Women in Biomedical Careers: Dynamics of Change, sponsored by the Office of Research on Women's Health, National Institutes of Health, June.

Journal Service

- 1993-present Reviewer for: *BBA, Blood, Cell/Molecular Cell, EMBO J., EMBO Reports, Experimental Cell Research, Gene, Genes and Development, Journal of Biological Chemistry, Journal of Cell Biology, International Journal for Parasitology, Molecular and Cellular Biology, Molecular Biology of the Cell, RNA, Nucleic Acids Research, Physiological Genomics, Trends in Biochemical Sciences, Trends in Cell Biology, Proceedings of the National Academy of Sciences USA, Science, Nature Structure and Molecular Biology*

Professional Organizations

- Membership: RNA Society, American Society for Biochemistry and Molecular Biology, American Society for Cell Biology, American Society for Microbiology, The Beaumont Medical Club, Yale History of Medicine.

Meeting Planning

- 2010, 2012 Co-organizer, Wellcome Trust Sub Nuclear Structures and Disease, Hinxton, UK
- 2009 Co-organizer, Ribosome Synthesis meeting, Regensburg, Germany
- 2006 Organizer, 7th International Conference on Ribosome Synthesis, Airlie Conference Center, Virginia
- 2004 RNA Society meeting, session chair
- 2003 Organizer, 6th International Conference on Ribosome Synthesis, Arcachon, France

Yale University Service

University Committees

- 2015-2016 Science Teaching Fellows Working Group
- 2015-2016 Physical Sciences and Engineering Tenure Appointments Committee
- 2013-2014 University Budget Committee
- 2012-present Yale Center for Molecular Discovery Advisory Board

2010-2011 Graduate School Faculty Advisory Committee
 2009-2011 Biological Sciences Advisory Committee (BSAC/TACBS)
 2009-2010 Committee on Regulations and Discipline, Graduate School
 2008-present Beckman Scholars Program, Chair
 2008-2009 NEASC reaccreditation committee Standard Five "Faculty"
 2006-2011 Steering Committee, Yale College
 2006-2011 HHMI Undergraduate Science Program Steering Committee
 2006-2007 Teaching Support Committee
 2004-2009 STARS Advisory Committee

School of Medicine

2015 Reviewer for Yale Discovery Fund Letters of Intent for the Yale Cancer Center
 2015 Reviewer for the Rudolph J. Anderson Postdoctoral Fellowship for "... research and investigation in biochemistry..."
 2012 Committee chair and reviewer, Leslie Ann Warner Fellowship Grants, Yale Cancer Center
 2012-present Genetics Graduate Education Steering Committee
 2011-present Cancer Biology Initiative Steering Committee and Search Committee
 2007-present Preclinical Course Directors' Committee
 2007-2008 Search Committee, Chair of Cell Biology
 2006-2007 LCME Medical Students Committee
 2005-2009 Yale Council on the Medical Humanities and the Arts
 2005 Search Committee, Chair of Laboratory Medicine
 2004-present Predoctoral Training Program in Genetics, Executive Committee
 2004 Educational Mission Task Force
 2003-present Medical Library Committee (current Chair)
 2002-2005 Funds and Fellowships Committee
 2002 Search Committee, Cancer Center Director
 2000-2009 Member, Executive Committee and Reviewer, Anna Fuller Fund Fellowship Grants
 2000-2005 Reviewer, Leslie Ann Warner Fellowship Grants, Yale Cancer Center
 2000-2001 Tercentennial Committee
 1999-present Executive Committee of the Association of Yale Alumni in Medicine
 1999 Search Committee, Deputy Dean for Education
 1998 Basic Science Liaison, Donaghue Women's Health Initiative
 1991-2009 MD/PhD program admissions committee
 1990-present Yale Graduate School Alumni Fund Agent, Dept. of Genetics
 1985-2008 Dean's Board on Sexual Harassment (was chair)
 1980-2000 Committee on the Status of Women

Patents:

To Yale University, "Genetically Engineered Low Oxygen Affinity Mutants of Human Hemoglobin" James J. Fischer and Susan J. Baserga, co-inventors (#5,173,426 on 12/22/ 1992).

To Yale University, "Method for increasing tissue oxygenation using..." James J. Fischer and Susan J. Baserga, co-inventors (#5,770,560 on 6/23/1998).

BIBLIOGRAPHY

Scientific/medical papers

Peer-reviewed original research

1. Rossini, M., **Baserga, S.**, Huang, C.H., Ingles, C.J., and Baserga, R. Changes in RNA Polymerase II in a cell cycle-specific temperature sensitive mutant of hamster Cells. *J. Cell Phys.* (1980) 103:97-103.
2. **Baserga, S.J.**, Linnenbach, A.J., Malcolm, S., Ghosh, P., Malcolm, A.D.B., Takeshita, K., Forget, B.G., and Benz, E.J., Jr. Polyadenylation of human mitochondrial ribosomal RNA transcripts detected by molecular cloning. *Gene* (1985) 35:305-312.
3. **Baserga, S.J.** and Benz, E.J., Jr. Nonsense mutations affect β Globin mRNA metabolism. *Proc. Natl. Acad. Sci. USA* (1988) 85:2056-2060.
4. Atweh, G., **Baserga, S.J.** and Brickner, H.E. Detecting small mutations in expressed genes by a combination of S1 Nuclease and RNase A. *Nuc. Acids Res.* (1988) 16:8709.
5. Magnus, T., **Baserga, S.J.**, Stolle, C., Takeshita, K. and Benz, E.J., Jr. Metabolism of non translatable mRNAs arising from premature termination codons. *Annals N.Y. Acad. Sci.* (1990) 612:55-66.
6. **Baserga, S.J.**, Yang, X.W. and Steitz, J.A. An intact Box C sequence is required for binding of fibrillarin, the protein common to the major family of nucleolar snRNPs. *EMBO J.* (1991) 10:2645-2651.
7. **Baserga, S.J.**, Yang, X.W. and Steitz, J.A. Three pseudogenes for human U13 snRNA belong to class III. *Gene* (1991) 107:347-348.
8. **Baserga, S.J.** and Benz, E.J., Jr. β -Globin Nonsense Mutation: Deficient accumulation of mRNA occurs despite normal cytoplasmic stability. *Proc. Natl. Acad. Sci. USA* (1992) 89:2935-2939.
9. **Baserga, S.J.**, Gilmore-Hebert, M. and Yang, X.W. Distinct molecular signals for nuclear import of the nucleolar snRNA, U3. *Genes Dev.* (1992) 6:1120-1130.
10. Dunbar, D.A., Ware, V.C. and **Baserga, S.J.** The U18 small nucleolar RNA is not essential for pre-rRNA processing in *Xenopus laevis* oocytes. *RNA* (1996) 2:324-333.
11. Dunbar, D.A., Wormsley, S., Agentis, T.M. and **Baserga, S.J.** Mpp10p, a U3 small nucleolar ribonucleoprotein component required for pre-18S rRNA processing in yeast. *Mol. Cell. Biol.* (1997) 17:5803-5812.
12. Lee, S.J. and **Baserga, S.J.** Functional separation of pre-rRNA steps revealed by truncation of the U3 small nucleolar ribonucleoprotein component, Mpp10. *Proc. Natl. Acad. Sci. USA* (1997) 94:13,536-13,541.
13. Westendorf, J.M., Konstantin, K.N., Wormsley, S., Shu, M.D., Matsumoto-Taniura, N., Pirollet, F., Klier, F.G., Gerace, L., and **Baserga, S.J.** M phase phosphoprotein 10 (MPP10) is a human U3 snoRNP component. *Mol. Biol. Cell* (1998) 9:437-449.
14. Dunbar, D.A. and **Baserga, S.J.** The U14 snoRNA is required for 2'-O-methylation of the pre-18S rRNA in *Xenopus* oocytes. *RNA* (1998) 4: 195-204.

15. Lee, S.J. and **Baserga, S.J.** Imp3p and Imp4p: two specific components of the U3 small nucleolar ribonucleoprotein that are required for pre-18S rRNA processing. *Mol. Cell. Biol.* (1999) 19:5441-5442.
16. Lyman, S.K., Gerace, L. and **Baserga, S.J.** Human Nop5/Nop58 is a component common to the box C/D small nucleolar ribonucleoproteins. *RNA* (1999) 5:1597-1604.
17. Dunbar, D.A., Wormsley, S., Lowe, T. and **Baserga, S.J.** *Trypanosoma brucei* has many box C/D small nucleolar RNAs with the potential to guide 2'-O-ribose methylation of rRNA. *J. Biol. Chem.* (2000) 275 :14767-14776.
18. Dunbar, D.A., Chen, A.A., Wormsley, S. and **Baserga, S.J.** The genes for small nucleolar RNAs in *Trypanosoma brucei* are organized in clusters and are transcribed as a polycistronic RNA. *Nuc. Acids Res.* (2000) 28: 2855-2861.
19. Dunbar, D.A., Dragon, F., Lee, S.J. and **Baserga, S.J.** A nucleolar protein related to ribosomal protein L7 is required for an early step in large ribosomal subunit biogenesis. *Proc. Natl. Acad. Sci. USA* (2000) 97: 13027-13032.
20. Wormsley, S., Samarsky, D.A., Fournier, M.J., and **Baserga, S.J.** An unexpected, conserved segment of the U3 snoRNA is required for Mpp10p association. *RNA* (2001) 7:904-919.
21. Yang, J.M., **Baserga, S.J.**, Turley, S.J., and Pollard, K.M. Non-fibrillar snoRNP proteins are targets of autoantibodies in xenobiotic-induced autoimmunity. *Clin. Imm.* (2001) 101:38-50.
22. Wehner, K.A. and **Baserga, S.J.** The sigma⁷⁰-like motif: a eukaryotic RNA binding domain unique to a superfamily of proteins required for ribosome biogenesis. *Mol. Cell* (2002) 9:329-339.
23. Wehner, K.A., Ayala, L., Kim, Y. Young, P., Hosler, B.A., Lorson, C. **Baserga, S.J.**, Francis, J. W. Survival motor neuron protein in the nucleolus of mammalian neurons. *Brain Research* (2002) 945:160-173.
24. Dragon, F., Gallagher, J.E.G., Compagnone-Post, P.A., Mitchell, B.M., Porwancher, K.A., Wehner, K.A., Wormsley, S., Settlege, R.E., Shabanowitz, J., Osheim, Y., Beyer, A.L., Hunt, D.F. and **Baserga, S.J.** A large nucleolar U3 ribonucleoprotein required for 18S rRNA biogenesis. *Nature* (2002) 417:967-970. Commentary in *Chemistry and Biology* (9, 777-780, 2002) and *Current Biology* (12, R623-R624, 2002).
25. Wehner, K.A., Gallagher, J.E.G. and **Baserga, S.J.** Components of an inter-dependent unit within the SSU processome regulate and mediate its activity. *Mol. Cell. Biol.* (2002) 22:7258-7267.
26. Meskauskas, A., Baxter, J.L., Carr, E.A., Yassenchak, J., Gallagher, J.E.G., **Baserga, S.J.** and Dinman, J. Delayed rRNA processing results in significant ribosome biogenesis and functional defects. *Mol. Cell. Biol.* (2003) 23:1602-1613.
27. Granneman, S., Gallagher, J.E.G., Vogelzangs, J., Horstmann, W., van Venrooij, W.J., **Baserga, S.J.** and Pruijn, G.J.M. The human Imp3 and Imp4 proteins form a ternary complex with hMpp10, which only interacts with the U3 snoRNA in 60-80S ribonucleoprotein complexes. *Nuc. Acids Res.* (2003) 32:1877-1887.
28. Gallagher, J.E. and **Baserga, S.J.** Two-hybrid Mpp10p interaction-defective Imp4 proteins are not interaction defective *in vivo* but do confer specific pre-rRNA processing defects in *Saccharomyces cerevisiae*. *Nuc. Acids Res.* (2004) 32:1404-1413.

29. Gallagher, J.E., Dunbar, D.A., Granneman, S., Mitchell, B.M., Osheim, Y., Beyer, A.L. and **Baserga, S.J.** RNA polymerase I transcription and pre-rRNA processing are linked by specific SSU processome components. *Genes Dev.* (2004) 18:2506-2517.
30. Bernstein, K.A. and **Baserga, S.J.** The SSU processome is required for cell cycle progression at G1. *Mol. Biol. Cell* (2004) 15:5038-5046.
31. Bernstein, K.A., Gallagher, J.E.G., Mitchell, B.M., Granneman, S. and **Baserga, S.J.** The small-subunit processome is a ribosome assembly intermediate. *Euk. Cell* (2004) 3:1619-1626.
32. Osheim, Y.N., French, S.L., Keck, K.M., Champion, E.A., Spasov, K., Dragon, F., **Baserga, S.J.** and Beyer, A.L. Pre-18S ribosomal RNA is structurally compacted into the SSU processome prior to being cleaved from nascent transcripts in *Saccharomyces cerevisiae*. *Mol. Cell* (2004) 16:943-954.
33. Granneman, S., Nandineni, M.R. and **Baserga, S.J.** The putative NTPase Fap7 mediates cytoplasmic 20S pre-rRNA processing through a direct interaction with Rps14. *Mol. Cell. Biol.* (2005) 25:10352-10364.
34. Bernstein, K.A., Granneman, S., Lee, A., Manickam, S. and **Baserga, S.J.** A comprehensive mutational analysis of yeast DExD/H box RNA helicases involved in large ribosomal subunit biogenesis. *Mol. Cell. Biol.* (2006) 26:1195-1208.
35. Granneman, S., Bernstein, K.A., Bleichert, F. and **Baserga, S.J.** A comprehensive mutational analysis of yeast DExD/H box RNA helicases required for 18S rRNA synthesis. *Mol. Cell. Biol.* (2006) 26:1183-1194.
36. Zhang, X., Champion, E.A., Tran, E., Brown II, B.A., **Baserga, S.J.** and Maxwell, E.S. The coiled-coil domain of the Nop56/58 core protein is dispensable for sRNP assembly but is critical for archaeal box C/D sRNP-guided nucleotide methylation. *RNA* (2006) 12: 1092-1103, PMID: PMC1464844.
37. Granneman, S.*, Lin, C.Y.*, Champion, E.A., Nandineni, M.R., Zorca, C., and **Baserga, S.J.** The nucleolar protein Esf2 interacts directly with the DExD/H box RNA helicase, Dbp8, to stimulate ATP hydrolysis. *Nuc. Acids Res.* (2006) 34: 3189-3199. * these two authors contributed equally. PMID: PMC1483223.
38. Bleichert, F., Granneman, S., Osheim, Y.N., Beyer, A.L. and **Baserga, S.J.** The PINc domain protein Utp24, a putative nuclease, is required for the early cleavage steps in 18S rRNA maturation. *Proc. Natl. Acad. Sci USA* (2006) 103: 9464-9469, PMID: PMC14800430.
39. Bernstein, K.A., Bleichert, F., Bean, J.M., Cross, F.R*. and **Baserga, S.J.***. Ribosome biogenesis is sensed at the Start cell cycle checkpoint. *Mol. Biol. Cell* (2007) 18:953-964. *these two authors contributed equally. PMID: PMC1805094
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42. Bleichert, F., Gagnon, K.T. Brown II, B.A Maxwell,, E.S., Leschziner, A.E., Unger, V.M. and **Baserga, S.J.** A dimeric structure for archaeal box C/D small ribonucleoproteins. *Science* (2009) 325:1384-1387, PMID PMC2975540.

43. Freed, E.F. and **Baserga, S.J.** The C-terminus of Utp4, mutated in childhood cirrhosis, is essential for ribosome biogenesis. *Nuc. Acids Res.* (2010) 38: 4798-4806, PMID: PMC3001065.
44. Bleichert, F. and **Baserga, S.J.** Dissecting the role of conserved box C/D sRNA sequences in di-sRNP assembly and function. *Nuc. Acids Res.* (2010) 38:8295-305, PMID: PMC3001065.
45. Charette, J.M. and **Baserga, S.J.** The DEAD-Box RNA helicase-like Utp25 is an SSU processome component. *RNA* (2010) 16: 2156-69, PMID: PMC2957055.
46. Dutca, L., Gallagher, J.E., and **Baserga, S.J.** The initial U3 snoRNA:pre-rRNA base-pairing interaction required for pre-18S rRNA folding revealed by in vivo chemical probing. *Nuc. Acids Res.* (2011) 39:5164-80, PMID: PMC3130255.
47. Lim Y.H., Charette J.M., and **Baserga S.J.** Assembling a protein-protein interaction map of the SSU processome from existing datasets. *PLoS One.* (2011) 6:e17701, PMID: PMC3053386.
48. Freed, E.F., Prieto, J.L., McCann, K.L., McStay, B. and **Baserga, S.J.** NOL11, implicated in the pathogenesis of North American Indian Childhood Cirrhosis, is required for pre-rRNA transcription and processing. *PLoS Genetics* (2012) 8:e1002892, PMID: PMC3420923.
49. Bower-Phipps, K.R., Taylor, D.W., Wang, H.W. and **Baserga, S.J.** The Box C/D sRNP dimeric architecture is conserved across domain Archaea. *RNA* (2012) 18:1527-40, PMID: PMC3404373.
50. Richardson L.A., Reed B.J., Charette J.M., Freed E.F., Fredrickson E.K., Locke M.N., **Baserga S.J.**, Gardner R.G. A conserved deubiquitinating enzyme controls cell growth by regulating RNA polymerase I stability. *Cell Reports* (2012) 2:372-385, PMID: PMC3638920.
51. Zhao, C., Andreeva, V., Gibert, Y., Laonty, M., Lattanzi, V., Prabhudeai, S., Zhou, Y., Zon, L., McCann, K.L., **Baserga, S.J.** and Yelick, P. Tissue specific roles for the ribosome biogenesis factor Wdr43 in zebrafish development. *PLoS Genetics* (2014) Jan 30;10(1):e1004074. doi: 10.1371/journal.pgen.1004074. eCollection 2014, PMID: PMC3907300.
52. Qiu, C., McCann, K.L., Wine, R.N., **Baserga, S.J.***, and Hall, T.M.T*. A divergent Pumilio repeat protein family for pre-rRNA processing and mRNA localization. *Proc. Natl. Acad. Sci. USA* . (2014) 111: 18554-18559, PMC4284587 *co-corresponding authors
53. Griffin, J.N., Sondalle, S.B., del Viso, F., **Baserga, S.J.*** and Khokha, M.K.* The ribosome biogenesis factor Nol11 is required for optimal rDNA transcription and craniofacial development in *Xenopus*. *PLoS Genet* (2015) 11(3): e1005018. doi:10.1371/journal.pgen.1005018 eCollection 2015 Mar. PMC4354908 *co-corresponding authors. Recommended article F1000Prime.
54. McCann, K.L., Charette, J.M., Vincent, N.G., and **Baserga, S.J.** A protein interaction map of the LSU processome. *Genes Dev.* (2015) 29: 862-875. PMC4403261
55. McCann, K.L., Teramoto, T., Zhang, J., Hall, T.M.T.*, **Baserga, S.J.*** The molecular basis for ANE syndrome revealed by the large ribosomal subunit processome interactome. *eLife* (2016) 5:e16381. *co-corresponding authors. PMID: PMC4859800
56. Yip, W.S.V., Shigematsu, H., Taylor, D.W. and **Baserga, S.J.** Box C/D sRNA stem ends act as stabilizing anchors for box C/D di-sRNPs. *Nucleic Acids Research* (2016) 44:8976.
57. Zhang, J., McCann, K.L., Qiu, C., Gonzalez, L.E., **Baserga, S.J.***, and Hall, T.M.T.* Nop9 is a PUF-like protein that prevents premature cleavage to correctly process pre-18S rRNA. *Nature Communications* (2016) 7:13085. *co-corresponding authors.

58. Tao, T.*, Sondalle, S.B.*, Shi, H.*, Zhu, S., Perez-Atayde, A.R., Peng, J., **Baserga, S.J.**[#], and Look, A.T.[#]. The pre-rRNA processing factor DEF is rate limiting for the pathogenesis of MYCN-driven neuroblastoma. submitted to *Oncogene*. *These authors contributed equally to this work. [#]co-corresponding authors.

59. Robson, A., Owens, N.D.L., **Baserga, S.J.**, Khokha, M.K., and Griffin, J.N. Expression of ribosomopathy genes during *Xenopus tropicalis* embryogenesis. In press, *BMC Developmental Biology*

Reviews, chapters, books

1. Granneman, S. and **Baserga, S.J.** Probing the yeast proteome for RNA-processing factors. *Genome Biology* (2003) 4: 229-234.
2. Granneman, S. and **Baserga, S.J.** Ribosome biogenesis: of knobs and RNA processing. *Experimental Cell Research* (2004) 296:43-50.
3. Dunbar, D.A. and **Baserga, S.J.** Targeted destruction of small, stable RNAs: principles applicable to antisense therapies. In *Cancer Drug Discovery and Development: Nucleic Acid Therapeutics in Cancer*. (A.M. Gewirtz, ed) Humana Press Inc., Totowa, NJ, 2004.
4. Granneman, S. and **Baserga, S.J.** Crosstalk in gene expression: coupling and co-regulation of rDNA transcription, pre-ribosome assembly and pre-rRNA processing. *Curr. Op. Cell Biol.* (2005) 17:281-286.
5. Champion, E.A. and **Baserga, S.J.** Autoantibody Recognition of Macromolecular Structures. In: *Autoantibodies and Autoimmunity: Molecular Mechanisms in Health and Disease*. (Michael Pollard, ed.) pp 379-417. WILEY-VCH: Weinheim, Germany:2006.
6. Champion, E.A. and **Baserga, S.J.** RNA Synthesis and Splicing. In: *Biochemistry*, 6th edition, (J.M. Berg, J.L. Tymoczko and L. Stryer, eds) Chapter 29. 2006.
7. Bleichert, F. and **Baserga, S.J.** The long unwinding road of RNA helicases. *Mol Cell.* (2007) 27: 339-352.
8. Freed, E.F., Bleichert, F., Dutca, L.M., and **Baserga, S.J.** When ribosomes go bad: diseases of ribosome biogenesis. *Mol. BioSyst.* (2010) 6, 481-493. *third highest cited review in that journal in 2010 and 2011.
9. Bleichert, F. and **Baserga, S.J.**, Ribonucleoprotein multimers and their functions. *Crit. Rev. Biochem. Mol. Biol.* (2010) 45:331-50, PMID: PMC2939948.
10. Phipps, K.R., Charette, J.M. and **Baserga, S.J.** The SSU processome in ribosome biogenesis - Progress and Prospects. *WIREs RNA* (2011) 2:1-21, PMID: PMC3035417.
11. Freed, E. and **Baserga, S.J.** Ribosome biogenesis and disease. *McGraw-Hill 2012 Yearbook of Science & Technology*, 215-218.
12. Bleichert, F. and **Baserga, S.J.** Small ribonucleoproteins in ribosome biogenesis. In *The Nucleolus*, *Protein Reviews* (2011) 15, 135-156.
13. Rawling, D.C. and **Baserga, S.J.** *In vivo* approaches to dissecting the function of RNA helicases in eukaryotic ribosome assembly. In Eckhard Jankowsky, editor: *Methods in Enzymology*, Burlington: Academic Press (2012) Vol. 511, 289-321, PMID: PMC3596880.
14. McCann, K.L. and **Baserga, S.J.** Long noncoding RNAs as sinks in Prader-Willi syndrome. *Mol.*

Cell. (2012) 48:155-157, PMID: PMC3496270.

15. Yip, W.S., Vincent, N.G. and **Baserga, S.J.** Ribonucleoproteins in archaeal pre-rRNA processing and modification. *Archaea* (2013) 2013:614735. doi: 10.1155/2013/614735. Epub 2013 Mar 10.

16. Woolford, J.L. and **Baserga, S.J.** Ribosome biogenesis in the yeast *Saccharomyces cerevisiae*. *Yeastbook, Gene expression & mechanism, Genetics* (2013) 195: 1-39.

17. McCann, K.L. and **Baserga, S.J.** Mysterious ribosomopathies. *Science* (2013) 341: 849. Podcast interview at <http://scim.ag/>. PMID: PMC 3893057.

18. Sondalle, S.B. and **Baserga, S.J.** Human diseases of the SSU processome. *Biochimica et Biophysica Acta* (2014) Jun;1842(6):758-64. doi: 10.1016/j.bbadis.2013.11.004. Epub 2013 Nov 12. PMID: PMC4058823

19. McCann, K.L. and **Baserga, S.J.** Driving nucleolar assembly. *Genes & Dev.* (2014) 28: 211-213, PMID: PMC3923963.

20. Farley, K.I., Surovtseva, Y., Merkel, J. and **Baserga, S.J.** Determinants of mammalian nucleolar architecture. (2015) *Chromosoma* 124: 323-331, PMID: PMC4534358.

21. Sondalle, S.B., **Baserga, S.J.*** and Yelick, P.C.* The contributions of the ribosome biogenesis protein, Utp5/WDR43, to craniofacial development. *Journal of Dental Research* (2016) 95:1214. *co-corresponding authors

22. Farley, K.I. and **Baserga, S.J.** Probing the mechanisms underlying human diseases in making ribosomes. *Biochemical Society Transactions* (2016) 44:1035.

History of Medicine papers/exhibits:

1. Original articles

1. **Baserga, Susan J.** and Lisa Anderson. Women and the Yale University School of Medicine: The First Ten Years, 1916-1926. 1979. Exhibit for the Yale School of Medicine Historical Library.

2. **Baserga, Susan J.:** The Early Years of Coeducation at the Yale University School of Medicine. *The Yale Journal of Biology and Medicine* (1980) 53: 181-190.

3. **Baserga, Susan J.** Louise Farnam and her Colleagues: First Women Graduates of the Yale School of Medicine. 1986. Exhibit for the Yale School of Medicine Historical Library.

4. **Baserga,S.J.,** Calhoun,D.W. and Calhoun,L.H. Ella Clay Wakeman, Yale School of Medicine, 1921. *Yale Journal of Biology and Medicine* (1995) 68:171-190.

Invited Lectures:

2016: RNA Center Retreat, Yale, September

2016: OddPol meeting, University of Michigan, June

2016: West Virginia University, April

2016: ASBMB William C. Rose Lecture, San Diego, CA.

2016: Science on Saturdays, Yale University

2015: University of Oklahoma, November

2015: Yale Minority Student Research Network talk, led discussion on unconscious bias at Yale

University, October

2015: Represented Yale at the NIH Graduate & Professional School Fair 2015

2015: Demystifying Peer Review, Yale School of Medicine, May

2015: NIEHS, March

2015: Purdue University, March

2014: Tufts University School of Medicine, Developmental, Molecular and Chemical Biology, December

2014: 4th Yale Biophysics & Structural Biology Symposium

2014: OddPol meeting, June

2013: “The promise of poop” Genetics Department Journal Club. December

2013: When to put down your pipette...and start writing. Yale Graduate School Writing Center. September

2013: Ribosomes 2013, July

2013: American Society for Biochemistry and Molecular Biology Annual meeting, Boston, April

2013: Vanderbilt University, April

2012: 2nd annual RNA Center Retreat, Yale University

2012: The 9th International Conference on Ribosome Synthesis, Banff, Canada

2012: Subnuclear Structures and Disease, The Wellcome-Trust, Cambridge, UK

2012: Meeting with Michael Dolsten, President, Worldwide Research and Development, Pfizer

2012: The University of Pennsylvania

2012: Junior PI Retreat, Yale University

2011: AASLD The Liver Meeting, San Francisco, CA, November 2011 (talk given by student, Emily Freed)

2011: Leadership in Biomedicine Lecture Series for Students, March 30, 2011, Yale School of Medicine

2011: Brown University

2011: New York Academy of Sciences, The Cellular Functions of RNA Nucleases

2011: Scripps, Florida

2010: Northwestern

2010: Yale U Liver Center Mini-Retreat, Betts House, New Haven

2010: RNA Society 2010 meeting (talk given by postdoctoral fellow, Laura Dutca) Seattle, WA

2010, 2012: Sub-Nuclear Structures and Disease, Wellcome Trust, Hinxton Organizer and speaker

2010: Young PI Lunch, Genetics Dept.

2010: Yale U Liver Center Retreat, Water's Edge Resort & Spa, Westbrook, CT

2009: American Society for Cell Biology, 49th Annual meeting

2009: 8th International Conference on Ribosome Synthesis (talk given by student, Franziska Bleichert), Regensburg, Germany

2009: ASBMB, Experimental Biology 2009 meeting (talk given by student, Franziska Bleichert) New Orleans, LA

2008: GREAT (Graduate Research Education and Training) Group meeting representative from Yale, Seattle WA

2008: NIDDK, Ribosomes and Their Role in Disease, Rockville, MD

2008: RNA Society meeting 2008-talk given by my student, Franziska Bleichert

2008: OddPols 2008, Quebec

2008: The Nucleolus and Disease, UK

2006: 7th International Conference on Ribosome Synthesis, Airlie Conference Center, Virginia-talk given by my student, Kara Bernstein

2006: Yeast Meeting 2006, Princeton, NJ- talk for a workshop on how to write a grant

2006: EMBO workshop on The Nucleolus, York, UK,

2005: RNA Biology VI: Tool and Target, Research Triangle Park, North Carolina

2005: Riboclub Opening Session, Canada

2005: RNA Society Meeting 2005-talk given by my post-doctoral fellow, Sander Granneman

2004: Duke University, November

2004: The Cell Nucleus, June 2004, Kristineberg, Sweden

2004: RNA Society meeting 2004-talk given by my student, Jen Gallagher

2003: 6th International Conference on Ribosome Synthesis, Arcachon, France-talk given by my student, Jen Gallagher
2003: RNA Society meeting 2003-talk given by my student, Jen Gallagher
2003: UCLA
2003: University of Texas, Austin
2003: RNA Editing Gordon Conference, Ventura, CA
2002: University of Connecticut
2002: MD Anderson
2002: University of Texas, Southwestern
2002: University of Chicago
2002: University of Virginia
2001: Nucleic Acids Gordon Conference, Newport, RI
2001: RNA Society meeting 2001-talk given by Francois Dragon, post-doctoral fellow
2001: UMDNJ
2001: Wesleyan University
2000: University of California at Berkeley
2000: University of California at Santa Cruz
2000: University of Arizona
2000: 5th International Conference on Ribosome Synthesis, Lake Tahoe, CA-talk given by my post-doctoral fellow, Francois Dragon
1998: MGH Cancer Center
1997: Symposium on RNA Biology, Research Triangle Park, North Carolina
1997: RNA Society