Curriculum Vitae

Thomas J. Maresca
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EDUCATION

University of North Carolina at Chapel Hill, B.S. in Biology with Honors, 1999
University of California at Berkeley, Ph.D. in Molecular and Cell Biology, 2005

RESEARCH TRAINING

1995-1999 Undergraduate Research and Honors Thesis, University of North Carolina at Chapel Hill in the laboratory of Dr. Kenneth F. Bott. Project: Defining a minimal genome using *Mycoplasma genitalium*.

1999-2005 Ph.D. Thesis, University of California at Berkeley in the laboratory of Dr. Rebecca Heald. Project: Characterizing the molecular mechanisms of chromosome condensation and spindle assembly using *Xenopus* egg extracts.

2006-2010 Postdoctoral Fellow at the University of North Carolina at Chapel Hill in the laboratory of Dr. Edward D. (Ted) Salmon. Subject: Translating kinetochore mechanics into a spindle assembly checkpoint signal.

PROFESSIONAL EXPERIENCE

1996-1997 Laboratory Assistant at The Public Archaelogy Laboratory, Inc., Pawtucket, RI.

1998 Research Technician: Laboratory of Dr. Christine Biron in the Department of Molecular Microbiology and Immunology at Brown University, Providence, RI.

AWARDS

1999 Honors Thesis Recipient, Biology Department, University of North Carolina at Chapel Hill
2000 Elected to Phi Beta Kappa Society
2002 Sigma-Xi Grants-in-Aid for Research Award, University of California at Berkeley
2007-2010 American Cancer Society Fellow

SELECTED FOR ORAL PRESENTATION

2005	Mitosis Symposium at the Marine Biological Laboratory in Woods Hole, MA
2005	Gordon Conference, "Chromosome Dynamics"
2008	ASCB Annual Meeting, Mitosis Minisymposium
2008	Cold Spring Harbor, "The Cell Cycle"

TEACHING

1996	Undergraduate Teaching Assistant, Department of Biology, University of North Carolina at Chapel Hill. Level: Undergraduate
2000	Teaching Assistant. University of California at Berkeley. Course: Cell Biology. Level: Undergraduate
2001	Teaching Assistant. University of California at Berkeley. Course: Cell Biology Laboratory. Level: Undergraduate
2002	Instructor. San Quentin Prison University Program through Patten University. San Quentin Prison, San Quentin, CA. Course: Introduction to Biology. Level: Prisoners working towards Associate Degree.
2004-2005	Teaching Assistant. The Marine Biological Laboratory in Woods Hole, MA. Course: Physiology. Level: Graduate, Post-doc, Professor

PUBLICATIONS

Nachury, M.V., **Maresca, T.J.**, Salmon, W.C., Waterman-Storer, C.M., Heald R., Weis K. 2001. Importin beta is a mitotic target of the small GTPase Ran in spindle assembly. *Cell*, **104(1):95-106.**

Wignall, S.M., Deehan, R., **Maresca, T.J.**, Heald, R. 2003. The condensin complex is required for proper spindle assembly and chromosome segregation in *Xenopus* egg extracts. *The Journal of Cell Biology*, **161(6):1041-51**.

Maresca, T.J., Freedman, B., Heald, R. 2005. Histone H1 is essential for mitotic chromosome architecture and segregation in *Xenopus laevis* egg extracts. *The Journal of Cell Biology*, **169(6):859-69**.

Maresca, T.J., Niederstrasser, H., Weis, K., Heald, R. 2005. Xnf7 contributes to spindle integrity through its microtubule-bundling activity. *Current Biology*, **15(19):1755-61**.

Maresca, T.J., Heald, R. 2005. Chromosome congression: Another fine mesh we've gotten into. *Developmental Cell*, **9(3):314-5**.

Maresca, T.J., Heald, R. 2005. Xenopus Protocols: Cell Biology and Signal Transduction. Methods for studying spindle assembly and chromosome condensation in Xenopus egg extracts. (Liu, X.J., volume ed., Walker, J., series ed.), Humana Press, Totowa, NJ.

Maresca, T.J., Heald, R. 2006. The long and the short of it: Linker histone H1 is required for metaphase chromosome compaction. *Cell Cycle*, **5(6):589-91**.

Yan, J., **Maresca, T.J.**, Skoko, D., Heald, R., Marko, J.F. 2006. Micromanipulation studies of chromatin fibers in *Xenopus* egg extracts reveal ATP-dependent nucleosome assembly dynamics. *Molecular Biology of the Cell*, **18(2):464-74**.

Brown K.S.*, Blower M.D.*, **Maresca T.J**.*, Grammer T.C., Harland R.M., Heald R. 2007. *Xenopus tropicalis* egg extracts provide insight into scaling of the mitotic spindle. *The Journal of Cell Biology*, **176(6):765-70**.
***Indicates Co-first authorship**

Gatlin, J.C., Matov, A., Groen, A.C., Needleman, D.J., **Maresca, T.J**., Danuser, G., Mitchison, T.J., Salmon, E.D. 2009. Spindle fusion requires dynein-mediated sliding of oppositely oriented microtubules. *Current Biology*, **19(4):287-96**.

Maresca, T.J., Salmon, E.D. 2009. Intrakinetochore stretch is associated with changes in kinetochore phosphorylation and spindle assembly checkpoint activity. *The Journal of Cell Biology*, **184(3):373-81**.

Groen, A.C.*, **Maresca, T.J**.*, Gatlin, J.C., Salmon, E.D., Mitchison, T.J. 2009. Functional overlap of microtubule assembly factors in chromatin-promoted spindle assembly. *Molecular Biology of the Cell*, **20(11):2766-73**.
***Indicates Co-first authorship**

Maresca, T.J.*, Groen, A.C.*, Gatlin, J.C., Mitchison, T.J., Salmon, E.D. 2009. Spindle assembly in the absence of a RanGTP gradient requires localized CPC activity. *Current Biology*, **19(14):1210-5**.
***Indicates Co-first authorship**

Needleman, D.J., Groen, A., Ohi, R., **Maresca, T.**, Mirny, L., Mitchison, T. 2010. Fast Microtubule Dynamics in Meiotic Spindles Measured by Single Molecule Imaging: Evidence that the Spindle Environment does not Stabilize Microtubules. *Molecular Biology of the Cell*, **21(2):323-33**.

Maresca, T.J., Salmon, E.D. 2010. Welcome to a new kind of tension: Translating kinetochore mechanics into a spindle assembly checkpoint signal. *Journal of Cell Science*, **15;123(Pt 6): 825-35**.