BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2.
Follow the sample format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Nicholi Vorsa	Professor of Plant Biology

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
Rutgers University	B.S.	1972-1976	Plant Science
Univ. of Wisconsin-Madison, Madison, WI	M.S.	1976-1978	Breeding & Genetics
Rutgers University, New Brunswick, NJ	Ph.D.	1980-1985	Breeding & Genetics

Positions and Employment

1985-1991 Assist. Professor of Horticulture, Rutgers University, New Brunswick, NJ
1989–1991 Assoc. Director, Blueberry and Cranberry Research and Extension Center, Rutgers University, Chatsworth, NJ
1991-1997 Assoc. Res. Professor of Plant Science, Rutgers University, New Brunswick, NJ
1991 - Director, P.E. Marucci Center for Blueberry and Cranberry Res. and Ext. Center, Rutgers University, Chatsworth, NJ
1997 - Professor, Dept. Plant Biology, Rutgers University, New Brunswick, NJ

Other Experience and Professional Memberships

1996-2000 Associate Editor, J. Amer. Soc. Hort. Sci. (Breeding & Genetics)
1996-2001 Chair, National Clonal Germplasm Repository Technical Committee
1995-present American Chemical Society
2004-2005 Technical Expert Committee-AHRQ, U.S. Depart. Health and Human Services

Cultivar Releases

Highbush blueberry (in cooperation with USDA-ARS)- Duke (1988), Toro (1988), Nelson (1989), Sierra (1989), Sunrise (1990), Legacy (1993), Chanticleer (1997), Hannah=s Choice (1999), Clara=s Choice (1999); Cranberry NJS98-23 (Crimson Queen®), CNJ97-104-5 (Mullica Queen®), NJS98-35 (Demoranville®), CNJ95-20-20 (Scarlet Knight™)

Patents

US Patent 6608102. Plant proanthocyanidins extract effective at inhibiting adherence of bacteria with P-type fimbriae to cellular surfaces August 19, 2003

Plant proanthocyanidins extract effective at inhibiting adherence of bacteria with P-type fimbriae to cellular surfaces (**Australian patent No. 744527**, issued June 13, 2002)
US Patent 7,270,837 Anti-inflammatory cranberry flavonol extract preparations', Issued Sept 18, 2007
US Plant Patent PP18,252, 'Cranberry variety NJS98-23' (Crimson Queen), Issued Nov 27 2007
US Plant Patent PP18,911, 'Cranberry variety NJS98-35' (Demoranville), Issued June 10 2008
US PP19,434, 'Cranberry variety CNJ97-105-4' (Mullica Queen), Issued Nov 11 2008
Cranberry variety NJS98-23', Canadian Breeders Rights Application **Cert. # 3742**, Grant-of-Rights Date January 2010
Cranberry variety CNJ97-105-4,, Canadian Breeders Rights Application **Cert. # 4423**, Grant-of-Rights Date November 2011
US PP22,541 Cranberry variety CNJ95-20-20, Issued March 6, 2012

Patent Applications:
Cranberry variety CNJ97-105-4 (Mullica Queen), Canadian Breeders Rights Application (No. 6-5575), Filed September 15, 2006.
Cranberry variety NJS98-35 (Demoranville), Canadian Breeders Rights Application, Submitted December 15, 2006 (pending)

Ongoing Research Support
USDA-SCRI 2008-51180-04878 Vorsa (PD) 9/01/08-8/31/2013
Breeding and genetics of fruit rot resistance and polyphenolics in cranberry
$997,679
Role: Project Director
NIH-NIDCR/Univ. Rochester 2RO1DE016139-04A2 7/01/10-6/30/14
$558,622
Molecular basis for carries inhibiting effects of cranberry flavonoids
Role: Collaborator Subcontract
Ocean Spray Cranberries, Inc. Vorsa (PI) 9/1/08-8/31/12
$500,000
Cranberry Breeding
NJCBRC Vorsa (PI) 1/1/12-12-/31/13
$160,000
Cranberry Breeding

Completed Research Support
NIH/NCCAM R01 AT002058-01 Hultgren (PI) 12/01/04-11/31/08
$1.5M
Effect of Cranberry Constituents on UTI Pathogenesis This study evaluates cranberry constituents on FimH based Type 1 *E. coli* infections.
Role: Subcontract

Publications 2007 to present

1. Ranger, C.M., A.P. Singh, J. Johnson-Cicalese, S. Polavarapu, and **N. Vorsa.** 2007. Intraspecific Variation in aphid resistance and constitutive phenolics exhibited by the wild blueberry *Vaccinium darrowii*. **J Chem Ecol** 33:711–729.
2. Kalkunte, S.S., Singh, A.P., Chaves, F.C., Gianfagna, T.J., Pundir, V.S., Jaiswel, A.K., **Vorsa, N.**, Sharma, S. 2007. Antidepressant and antistress activity of GC-MS characterized lipophilic extracts of *Ginko biloba*. **Phytother. Res.** 21:1061-1065.
3. Gregoire, S., A.P. Singh, **N. Vorsa**, H. Koo. 2007. Influence of cranberry phenolics on glucan synthesis by glucosyltransferases and *Streptococcus mutans* acidogenicity **J. Applied Microbio.** 103:1960–1968.
4. Wilson T., A.P. Singh, **N. Vorsa**, C.D. Goettl, K.M. Kittleson, C.M. Roe, G. M. Kastello, F.R. Ragsdale. 2008. Human Glycemic Response and Phenolic Content of Unsweetened Cranberry Juice **J. Med. Food** March 46-54
5. Wilson, T. S.L. Meyers, A.P. Singh, P.J. Limburg, and **N. Vorsa**. 2008. Favorable Glycemic Response of Type 2 Diabetics. **J. Food Sci.** 73(9):H241-H245.
6. Singh R.K., T.S. Lange, K.K. Kim, A.P. Singh, **N. Vorsa** and L. Brard. 2008. Isothiocyanate NB7M causes selective cytotoxicity, pro-apoptotic signalling and cell-cycle regression in ovarian cancer cells. **Brit. J. Cancer** 99, 1823 – 1831.
7. Johnson-Cicalese J., **N. Vorsa**, J. Polashock. 2009. Breeding for fruit rot resistance in *Vaccinium macrocarpon.* Proceedings of the IXth International Symposium on Vaccinium. **Acta. Hort.** 810, ISHS 2009. K. Ed. E. Hummer et al. pp. 191-195.
8. Singh A.P. , R.K. Singh, K.K. Kim, K.S. Satyan, R. Nussbaum, M. Torres, L. Brard, **N. Vorsa.** 2009. Cranberry proanthocyanidins are cytotoxic to human cancer cells and sensitize platinum-resistant ovarian cancer cells to paraplatin. **Phytotherapy Res.** 23:1066–1074.
9. Singh A. P., T. Wilson, A.J. Kalk, J. Cheong, **N. Vorsa**. 2009. Isolation of specific cranberry flavonoids for biological activity assessment. **Food Chem**. 116: 963–968.
10. Liburt N.R., K.H. McKeever, J.M. Streltsova, W.C. Franke, M.E. Gordon, H.C. M. Filho, DW Horohov, R.T. Rosen, C.T. Ho, A.P. Singh and N. Vorsa. 2010. Effects of ginger and cranberry extracts on the physiological response to exercise and markers of inflammation in horses. **Comparative Exercise Physiology** 6:157–169.
11. Koo, H., S. Duarte, R.M. Murata, K. Scott-Anne, S. Gregoire. G.E. Watson, A.P. Singh, **N. Vorsa**. 2010. Influence of cranberry proanthocyanidins on formation of biofilms by *Streptococcus mutans* on saliva-coated apatitic surface and on dental caries development *in vivo*. **Dental Caries** 44:116–126.
12. Rodriguez-Saona, C., **N. Vorsa**, Ajay P. Singh, J. Johnson-Cicalese, Z. Szendrei, M.C. Mescher and C. J. Frost. 2011. Tracing the history of plant traits under domestication in cranberries: potential consequences on anti-herbivore defences. **J. Exp. Bot.** doi:10.1093/jxb/erq466 pp.1-12.

13. E.V. Shabrova, O. Tarnopolsky, A.P. Singh, J. Plutzky, **N. Vorsa**, L. Quadro. 2011. Insights into the Molecular Mechanisms of the anti-atherogenic actions of flavonoids in normal and obese mice. **PLoS ONE** 6(10): e24634. doi:10.1371/journal.pone.0024634.
14. Singh, A. P., T.S. Lange, K.K. Kim, L. Brard, T. Horan, R.G. Moore, **N. Vorsa** and R.K. Singh. 2011. Purified cranberry proanthocyanidines (PAC-1A) cause proapoptotic signaling, ROS generation, cyclophosphamide retention and cytotoxicity in high-risk neuroblastoma cells. **Int. J. Oncol.** DOI: 10.3892/ijo.2011.1225.
15. Georgi, L., R.H. Herai, R. Vidal, M. Falsarella Carazzolle, G.alo Guimara˜es Pereira, J. Polashock and **N. Vorsa**. 2011. Cranberry microsatellite marker development from assembled next-generation genomic sequence. **Mol Breeding** DOI 10.1007/s11032-011-9613-7.
16. **Vorsa, N**., J. Johnson-Cicalese. 2011. American Cranberry, Chapter 6 In M.L. Badenes and D.H. Byrne (eds.), Fruit Breeding, Handbook of Plant Breeding 8, Springer Science & Business Media, LLC, p. 191-223, DOI 10.1007/978-1-4419-0763-9_6.
17. Tadych M., M.S. Bergen, J. Johnson-Cicalese, J. Polashock, **N. Vorsa**, J.F. White Jr. 2012. Endophytic and pathogenic fungi of developing cranberry ovaries from flower to mature fruit: diversity and succession**. Fungal Diversity** DOI 10.1007/s13225-012-0160-2
18. Fajardo D., J. Morales, H. Zhu , S. Steffan, R. Harbut, N. Bassil, K. Hummer, J. Polashock, **N. Vorsa**, J. Zalapa. 2012. Discrimination of American cranberry cultivars and assessment of clonal heterogeneity using microsatellite markers. **Plant Molecular Biology Reporter**. DOI: 10.1007/s11105-012-0497-4.
19. Georgi, L. • J. Johnson-Cicalese • J. Honig •S. Parankush Das • V. D. Rajah • D. Bhattacharya, N. Bassil, • L.J. Rowland • J. Polashock • **N. Vorsa**. 2012. The first genetic map of the American cranberry: exploration of synteny conservation and quantitative trait loci. **Theor Appl Genet.** DOI 10.1007/s00122-012-2010-8.,