Marjan Ghasemkhani

Professional Information

Degrees & Credentials:

PhD, Plant Biotechnology, Swedish university of agricultural science, Sweden
MSc, Agricultural Biotechnology,Shahid Bahonar University of Kerman, Iran
BSc, Plant Protection, Shahid Bahonar University of Kerman, Iran.

Awards and Grant:

First top student in B.Sc. among all bachelor students. 2006. Shahid Bahonar University of Kerman, Iran.

Second top student in M.Sc. with 0.02 different from the first one among all master students. 2010. Shahid Bahonar University of Kerman, Iran.

Previous Grants:

During PhD period, total funding of 132100 SEK granted for attending in different international conferences, workshops and courses: Stiftelsen Edvard Nonnens stipendiefond, 2013 and 2015 (KSLA). Stiftelsen C. G. Johnssons och hans arvingars fond, 2014 (KSLA). Ingeborg Sörenssons fond, 2012, 2014 and 2015 (SLU). Gösta och Anna-Birgit Henrikssons, 2013 (SLU). SLU fund for internationalization of postgraduate studies fund, 2014.
After PhD. 2017-2018: 3.9 MSEK, Formas Mobility Grant funding.

Previous position:

Research assistant	Part time employment in "Biocontrol pistachio root nematode using eucalyptus plant" project. 2008. Agricultural Research Institute of education of Kerman, Iran.
Research assistant	Full time employment, Pharmaceutics research center, Kerman University of Medical Sciences, Iran.
Research assistant	Full time employment, Swedish university of agricultural science
Researcher/postdoc	Full time employment, Swedish university of agricultural science
Assistant professor	Full time employment, Graduate University of Advanced Technology, Iran

Teaching:

Molecular marker and statistical genomics course. 2010, Shahid Bahonar University of Kerman, Iran.
Molecular genetics and molecular biology techniques for Master students, 2015-2016, Swedish university of agricultural science.

Editorial Duties and Society Fellows:

Editorial board member, Current Trends in Forest Research
Reviewer: physiological and molecular plant pathology journal, Achievement in the life science.

Publications:

Peer reviewed articles:

Villari C., Dowkiw A., Enderle R., **Ghasemkhani M**., Kirisits T., Kjaer E., Marčiulynienė D., McKinney L., Metzler B., Muñoz F., Rostgaard Nielsen L., Pliūra A., Stener L-G, Suchockas V., Rodriguez-Saona L., Bonello P. And M. Cleary. 2018. Advanced spectroscopy-based phenotyping offers a potential solution to the ash dieback epidemic. Scientific Reports 8:17448

Ghasemkhani M., Garkava-Gustavsson l., Liljeroth E. and H. Nybom. 2016. Assessment of diversity and genetic relationships of *Neonectria ditissima*: the causal agent of fruit tree canker. *Hereditas*, 153:7.

Ghasemkhani M., Holefors A., Marttila S., Dalman K., Zborowska A., Rur M., Rees-George J., Nybom H., Everett K. R., Scheper R. W. A. and L. Garkava-Gustavsson. 2016. Real-time PCR for detection and quantification, and histological characterization of *Neonectria ditissima* in apple trees. *Trees*, 30: 1111.

Cleary M., **Ghasemkhani M.,** Blomquist M. and J. Witzell. 2016. First report of *Phytophthora gonapodyides* causing stem canker on European beech (Fagus sylvatica) in Southern Sweden. *Plant Disease*, 100:10.

Ghasemkhani M., Liljeroth E., Sehic J., Zborowska A. and H. Nybom. 2015. Cut-off shoots method for estimation of partial resistance in apple cultivars to fruit tree canker caused by *Neonectria ditissima*. *Acta Agriculturae Scandinavica, Section B-Soil & Plant Science*, 65(5): 412-421.

Ghasemkhani M., Sehic J., Ahmadi-Afzadi M., Nybom H. and L. Garkava-Gustavsson. 2012. Screening for partial resistance to fruit tree canker in apple cultivars. *Acta Horticulturae*,1099, 687-690.

Ghasemkhani M., Holefors A., Zborowska A., Scheper R., Everett K., Nybom H and L. Garkava-Gustavsson. 2016. Development of a qPCR detection procedure of fruit tree canker caused by *Neonectria ditissima*. *Acta Horticulturae*, 1127, 259-264.

Garkava-Gustavsson L., **Ghasemkhani M.,** Zborowska A., Englund J.-E., Lateur M. and E. van de Weg. 2016. Approaches for evaluation of resistance to European canker (*Neonectria ditissima*) in apple. *Acta Horticulturae*, 1127, 75-82.

Nybom H., Røen Dag., Karhu S., Garkava-Gustavsson L., Tahir I., Haikonen T., Røen K., Ahmadi-Afzadi M., **Ghasemkhani M**. and S. H. Hjeltnes. 2016. Pre-breeding for future challenges in Nordic apples; susceptibility to fruit tree canker and storage diseases. *Acta Horticulturae*, 1127, 117-124.

Garkava-Gustavsson L[a]., **Ghasemkhani M**[α]., Canbäck B., Willforss J., Alexandersson E., Nybom H., van de Weg E. and T. Zhebentyayeva. Comparison of the transcriptomes of partially resistant and highly susceptible apple cultivars in response to *Neonectria ditissima* infection. (Manuscript).

Mirzaei S., Shahsavand Hassani H., Rameshi N., **Ghasemkhani M.** and M. Ahmadi-Afzadi. 2014. Cytogenetic study and optimization of genome in situ hybridization (GISH) method in *Pistacia* spp. *Journal of Agricultural Biotechnology*. *Journal of Agricultural Biotechnology*. Vol. 3(15). In Persion.

Mohammadi Nezhad Gh., **Ghasemkhani M**., Zare R., Sardouei Nasab S. and H. Sabouri. 2013. Evaluation of allelic diversity of microsatellite markers in QTL region attributed to salinity tolerance in Iranian rice cultivars. *Journal of Plant Production*. Vol. 20(3). In persion.

Ghasemkhani M. and G. Mohammadi-Nejad. 2012. Gene Mapping of Traits Attributed to Salinity Tolerance at Seedling and Reproductive Stages in Rice. *Journal of Agricultural Biotechnology*. Vol. 4(2). In persion.

Qasemkhani M., Mohammadabadi M R. and Sh. B. Moradnasab. 2008. Safety of Ethidium Bromide and its replacements. *Journal of Biosafety*. Vol. 1(2). In persion.

Conference papers :

Garkava-Gustavsson L., Zborowska A., Dörre M., **Ghasemkhani M**., Wenneker M., Englund J-E., Lateur M. and E. van de Weg. Phenotyping of resistance to European canker across genetically diverse germplasm. 3rd International Workshop on Apple Canker and Replant Disease. 1 -3 November, 2017. East Malling, United Kingdom.

Garkava-Gustavsson L[a] ., **Ghasemkhani M[a]** ., Odilbekov F., Dörre M , Samashko I., Canbäck B., Willforss J., Alexandersson E., Nybom H., van de Weg E. And T. Zhebentyayeva. Responses to Neonectria ditissima infection in apple: what do expression studies on partially resistant and susceptible cultivars tell us? 3rd International Workshop on Apple Canker and Replant Disease. 1 -3 November, 2017. East Malling, United Kingdom.

Garkava-Gustavsson L., Dalman K., **Ghasemkhani M.,** Sehic J., Vélëz H., Zborowska A., Dörre M., Odilbekov F., Kumar Kushwaha S., Alexandersson E., Willforss J., Canbäck B., Englund J.- E., Nybom H., Zhebentyayeva T. and E. van de Weg. Swedish research on European canker, a disease challenging fruit growers and scientists. 11th International IOBC - WPRS Workshop on Pome Fruit Diseases. 26-30 June, 2017. Jūrmala, Latvia.

Villari C., Dowkiw A., Enderle R., **Ghasemkhani M**., Kirisits Th., Kjaer E., Marčiulynienė, D., McKinney L., Metzler B., Muñoz F., Nielsen LR., Pliūra A., Stener L-G., Suchockas V., Rodriguez-Saona L., Bonello P. and M. Cleary. Advanced phenotyping using FT-IR distinguishes disease resistance in *Fraxinus excelsior* against *Hymenoscyphus fraxineus*. HealGenCAR

workshop “Fighting ash dieback with new and old tools”. 23-25 August, 2017. Skovskolen, Nødebo, Denmark.

Villari, C., Dowkiw, A., Enderle, R., **Ghasemkhani, M**., Kirisits, T., Kjaer, E., Marciulyniene, D., McKinney, L., Metzler, B., Munoz, F., Nielsen, LR., Pliura, A., Stener, LG., Suchockas, V., Rodriguez-Saona, L., Bonello, P. and M. Cleary. Use of FT-IR for rapid phenotyping of European ash resistance levels to ash dieback. Annual Meeting the American-Phytopathological-Society (APS),05-09 August, 2017. San Antonio, TX.

Villari, C., Dowkiw, A., Enderle, R., **Ghasemkhani, M**., Kirisits, T., Kjaer, E., McKinney, L., Metzler, B., Muñoz, F., Nielsen, LR., Pliūra, A., Stener, L-G., Suchockas, V., Rodriguez-Saona, L., Bonello, P. and M. Cleary. Fourier-transform infrared (FT-IR) spectroscopy can rapidly phenotype European ash resistance levels to *Hymenoscyphus fraxineus*. IUFRO 125th Anniversary Congress, 18-22 September, 2017. Freiburg, Germany.

Garkava-Gustavsson L[a]., **Ghasemkhani M[a].,** Canbäck B., Willforss J., Alexandersson E., Nybom H., van de Weg E. and T. Zhebentyayeva. 2016. Comparison of the transcriptomes of partially resistant and highly susceptible apple cultivars in response to *Neonectria ditissima* infection. RGC8; 8th International Rosaceae Genomics Conference. June 21-24, 2016. Angers, France.

Dalman K., Vélëz H., **Ghasemkhani M.,** Ihrmark k., Elfstrand m. and L. Garkava-Gustavsson. Identification of genomic regions for virulence in the fruit canker fungus *Neonectria ditissima*. RGC8; 8th International Rosaceae Genomics Conference. June 21-24, 2016. Angers, France.

Nybom H., Røen D., Karhu S., Ahmadi-Afzadi M., Sehic J., Tahir I., Garkava-Gustavsson L., Haikonen T., Røen K., **Ghasemkhani M.** and S.H. Hjeltnes. The holy grail for plant geneticists: good phenotyping data!. RGC8; 8th International Rosaceae Genomics Conference. June 21-24, 2016. Angers, France.

Ghasemkhani M., Garkava-Gustavsson L., Liljeroth E. and H. Nybom. Genetic diversity of *Neonectria ditissima* determined with AFLP and SSR markers. XIV Eucarpia; Fruit breeding and genetics symposium. June 14-18, 2015. Bologna, Italy.

Garkava-Gustavsson L., Zborowska A., **Ghasemkhani M**., Englund J.-E., Lateur M. and E. van de Weg. Resistance to European canker in apple: evaluation of parameters for resistance and assessment of cultivar differences. XIV Eucarpia; Fruit breeding and genetics symposium. June 14-18, 2015. Bologna, Italy.

Ghasemkhani M., Gustavsson L., Nybom H., Alexandersson E., Van de Weg E. and T. Zhebentyayeva. 2014. RNA-sequencing analysis to identify candidate genes associated with responses to fruit tree canker in apple. RGC7; 7th International Rosaceae Genomics Conference. June 24-26, 2014. Seattle, Washington, USA.

Ghasemkhani M., Holefors A., Zborowska A., Scheper R., Everett K., Nybom H and Garkava-Gustavsson L. Development of a qPCR detection procedure of fruit tree canker caused by *Neonectria ditissima*. ICH 2014; 29th International Horticultural Congress. August 17-22, 2014. Brisbane, Australia.

Garkava-Gustavsson L., **Ghasemkhani M**., Zborowska A., Sehic J., Nybom H., Englund J-E., Lateur M. and E. van de Weg. Evaluation of resistance to European canker (*Neonectria ditissima*) in apple. ICH 2014; 29th International Horticultural Congress. August 17-22, 2014. Brisbane, Australia.

Nybom H., Røen Dag., Karhu S., Garkava-Gustavsson L., Tahir I., Haikonen T, Røen K., Ahmadi-Afzadi M., **Ghasemkhani M.** and S. H. Hjeltnes. Prebreeding for Future Challenges in Nordic Apples; Susceptibility to Fruit Tree Canker and Storage Diseases. ICH 2014; 29th International Horticultural Congress. August 17-22, 2014. Brisbane, Australia.

Ghasemkhani M., Marttila S., Larisa Garkava-Gustavsson L. and H. Nybom. Anatomical studies of woody tissue to investigate fruit tree canker development in apple. International Conference on Plant Genetics and Breeding Technologies, February 18-20, 2013, Vienna, Austria.

Ghasemkhani M., Sehic J., Nybom H. and L. Garkava-Gustavsson. Response of apple cut shoots to infection caused by fruit tree canker; *Nectria ditissima*. 10th International congress of plant pathology. August 25-30, 2013. Beijing, China.

Ghasemkhani M., Garkava-Gustavsson L. and N. Hilde. Comparison of methods for assessment of partial resistance to fruit tree canker in apple. 2nd Symposium on horticulture in Europe, SHE 2012. July 1-5, 2012. Angers, France.

Garkava-Gustavsson L., Zborowska A., **Ghasemkhani M.,** Sehic J., Nybom H., Lateur M. and E. van de Weg.Towards unraveling the genetics of resistance to European canker in apple: current stage: phenotyping. 6th Rosaceous Genomics Conference (RGC6). 30th September - 4th October, 2012, Mezzocorona, Italy.

Qasemkhani, M. and G. Mohammadi Nejad. Identification of quantitative genes controlling the fertility and biomass under salinity stress in rice (*Oryza Sativa* L.). Plant genomics and beyond congress, 5-8 July, 2009, France.

Qasemkhani, M. and G. Mohammadi Nejad. Mapping quantitative genes attributed to the number and grain weight and height of rice (*Oryza Sativa* L.) under salinity stress at reproductive stage. Plant genomics and beyond congress, 5-8 July, 2009, France.

Mohammadi Nejad, M., **Qasemkhani, M.,** Sabouri, H., Tohidinejad, E., Fotokian, M. H. and B. Nakhoda. Evaluation of genotypic and phenotypic diversity among Iranian rice genotypes at reproductive stage under saline condition. 6th International rice genetics symposium, 16-19 Nov, 2009, Philippines.

Qasemkhani, M., Mohammai Nejad, G. and R. Zarea. Identification of quantitative genes affecting salt tolerance in Rice (*Oryza sativa* L.) at seedling and reproductive stage using micro satellite markers. 2nd National Biotechnology congress of Islamic Republic of Iran. 15-16 Jul, 2009, Kerman, Iran. In Persian.

Mohammadi Nejad, G., Zarea, R. and **M. Qasemkhani**. Evaluation of salinity tolerance in rice genotypes. 2nd National Biotechnology congress of Islamic Republic of Iran. 15-16 Jul, 2009, Kerman, Iran. In Persian.