

Curriculum vitae short: MICHAEL BAUM

Personal information:

Address (perm.): Allmendenweg 51, 40221 Düsseldorf,
Germany
Citizenship: German
Birth date: 20.1.1961
Marital status: married, four children
Address (current): ICARDA, P.O. Box 5466 Aleppo, Syria

Professional information:

1980 - 1985 Study of Agriculture at University of Göttingen, Germany.
1988 Doctor degree in plant breeding and cytogenetics,
1989 –1991 Post-doctoral studies at CSIRO, Division of Plant Industry, Canberra,
Australia.
1991 Lecturer, Institut für Pflanzenbau und Pflanzenzüchtung, University of
Göttingen, Plant Breeding and Cytogenetics.
1992 Legume-Biotechnologist, ICARDA.
1997 to date ICARDA biotechnologist.

Awards:

1989 Post-doctoral fellowship from "Deutscher Akademischer Austauschdienst,
DAAD" (German Academic Exchange Service).
2000 "Frosty Hill Fellowship", Cornell University, (Jan.2000-August 2000).

Recent selected research Grants:

"Functional Genomics of Drought and Cold Tolerance in ICARDA-mandated Legumes:
Chickpea and Lentil". 2002-2004 in collaboration with the University of Frankfurt, Prof, Dr. G.
Kahl.
"Integrating regional expertise in biotechnology for sustainable exploitation of plant genetic
resources in the Mediterranean region", collaboration between CIHAM-Maich, AGERI, AUB,
Ege University and ICARDA, 2000-2002.

Expertise:

Tissue culture techniques: doubled haploid breeding in cereals, somaclonal variation,
Molecular marker application: disease screening, Mapping and MAS;
Transformation technology: in lentil and chickpeas;
Genomics: Identification of stress induced genes, their cloning and sequencing,
Training: headquarter and in country training courses for NARES scientists, M.Sc and PhD
students

Recent refereed journal articles:

Baum M, Grando S, Backes G, Jahoor A, Sabbagh A, Ceccarelli S (2003) QTLs for agronomic
traits in the Mediterranean environment identified in recombinant inbred lines of the
cross 'Arta' x *H. spontaneum* 41-1. (TAG, accepted)
Russell JR, Booth A, Fuller JD, Baum M, Ceccarelli S, Grando S, Powell W (2003) Patterns of
polymorphism detected in the chloroplast and nuclear genomes of barley landraces
sampled from Syria and Jordan. Theor Appl Genet (in press).
Udupa SM, Baum M (2002) Genetic dissection of pathotype-specific resistance to ascochyta
blight disease in chickpea (*Cicer arietinum* L.) using microsatellite markers. Theor Appl
Genet, DOI 10.1007/s00122-002-1168-x

- Eujayl I, Sorrells M, Baum M, Wolters P, Powel W (2002) Isolation of EST-derived microsatellite markers for genotyping the A and B genomes of wheat. *Theor Appl Genet* (2002) 104:399–407
- Sayed H, Kayyal H, Ramsey L, Ceccarelli S, Baum M (2002) Segregation distortion in doubled haploid lines of barley (*Hordeum vulgare* L.) detected by simple sequence repeat (SSR) markers *Euphytica* 225: 265–272, 2002
- Udupa SM, Baum M (2001) High mutation rate and mutational bias at microsatellite loci in chickpea (*Cicer arietinum* L) *MGG* 265: 1097-1103.
- Eujayl I, Sorrells M, Baum M, Wolters P, Powel I (2001). Assessment of genotypic variation among cultivated durum wheat based on EST-SSRs and Genomic SSRs. *Euphytica* 119: 39-43.
- Udupa SM and M. Baum (2001). High mutation rate and mutational bias at microsatellite loci in chickpea (*Cicer arietinum* L). *Mol. Gen. Gen.* 265: 1097-1103.
- Naber N, El Bouhssini M, Labhilili M, Udupa SM, Nachit MM, Baum M, Lhaloui S, Benslimane A, El Abbouyi H. Genetic variation among populations of the hessian fly mayetiola destructor (Diptera: cecidomyiidae) in morocco and syria. *Bull Entomol Res.* 2000 Jun;90(3):245-52.
- Udupa, S.M., L.D. Robertson, F. Weigand, M. Baum and G. Kahl (1999). Allelic variation at (TAA)_n microsatellite loci in a world collection of chickpea (*Cicer arietinum* L.) germplasm. *Mol. Gen. Genet.* 261: 354-363.
- Eujayl, I., M. Baum, W. Powell, W. Erskine and E. Pehu (1998). A genetic linkage map of lentil (*Lens sp.*) based on RAPD and AFLP markers using recombinant inbred lines. *Theor. Appl. Genet.* 97: 83-89.
- Eujayl, I., W. Erskine, M. Baum, and E. Pehu 1999: Inheritance and linkage analysis of frost injury in a lentil population of recombinant inbred lines. *Crop Sci.* 39: 639-642.
- Eujayl, I. W. Erskine, B. Bayaa, M. Baum and E. Pehu 1998. Fusarium vascular wilt in lentil: Inheritance and identification of DNA markers for resistance. *Plant Breeding* 117: 497-499.
- Eujayl I, Baum M, Erskine W, Pehu E, Muehlbauer FJ (1997) Use of RAPD markers for genetic mapping and evaluation of segregation distortion in Lentil (*Lens culinaris* Medik.) *Euphytica* 96(3):405-412.

Book chapters:

- Ceccarelli S, Grando S, Baum M, Udupa SM (2003). Breeding for Drought Resistance in a Changing Climate. ASA Meeting, Indianapolis, 2002.
- Baum M, de Kathen A, Blake T (2003). Current Status of Biosafety Development in West Asia and North Africa. ASA Meeting, Indianapolis, 2002.
- Winter P, S. Rakshit, M. Baum and G. Kahl (2002). Mapping the Chickpea (*Cicer arietinum* L.) Genome: Localization of Fungal Resistance Genes in Interspecific Crosses. In: "Brassicas and legumes: From genome structure to plant breeding". Vol. 52, Biotechnology in Agriculture and Forestry (BAF), Springer-Verlag, Germany
- Baum, M., Weeden, N.F., Muehlbauer, F., Kahl, G., Udupa, S.M., Eujayl, I, Weigand, F., Harrabi, M. and Bouznad, Z., (2000). Marker technology for plant breeding. Pages 421-427 in: Linking research and marketing opportunities for pulses in the 21st century'. (R. Knight, ed.). Kluwer Academic Publishers, Dordrecht, The Netherlands.

Books:

- Baum M, De Kathen A, Ryan J [Eds] (2001) Workshop on developing and harmonising biosafety regulations for countries in West Asia and North Africa (WANA), ICARDA, Aleppo, 163 p.
- Nachit M, Baum M, Porceddu E, Picard E, Monneveux, 1998 (ed.). Durum Research Network, Proc. of SEWANA workshop held in Aleppo 1995.