The 42nd Tomato Breeders Roundtable
June 28 - July 1, 2009
Embassy Suites River Promenade
Sacramento, California

Sunday, June 28  Utilizing Molecular Markers in Tomato Breeding
Sponsored by the Solanaceae Coordinated Agricultural Project
Old Sacramento Ballroom

12:00 n  Sign In - SolCAP Molecular Marker Workshop  Hotel Lobby
12:45  Welcome and survey  
   Allen Van Deynze, Seed Biotechnology Center, UC Davis
1:00  Marker technologies  
   Allen Van Deynze, Seed Biotechnology Center, UC Davis
1:50  Analyzing quantitative trait loci  
   Hamid Ashrafi, Dept of Plant Sciences, UC Davis
2:40  Break
2:55  Marker assisted selection in tomato  
   David Francis, The Ohio State University
3:45  Effects of population structure on genetic analysis  
   Allen Van Deynze, Seed Biotechnology Center, UC Davis
4:35  Survey

3 to 8 pm  Registration - Tomato Breeders Roundtable
Non-guests of the Embassy Suites may purchase Manager’s Reception vouchers for Sunday and Monday evening receptions at TBRT registration ($18/night)

5:30  TBRT Welcoming reception  Balcony terrace
   (For Embassy Suites guests and voucher holders)

Dinner on your own
Monday, June 29  |  **Roundtable**  |  Old Sacramento Ballroom
7 to 9 am  |  Registration continues  |  Hotel Lobby

8:00 am  |  Welcome  |  Rich Ozminkowski, HeinzSeed, Stockton, California

8:10  |  **Session I – Public Breeding Program updates**  |  
Moderator: Rich Ozminkowski, HeinzSeed, Stockton, California
Each breeder will have a 15 to 20 minute opportunity to discuss the activities within their breeding program.
* A 15 minute break will be taken at approximately 10:00 am

- Cornell University  |  Martha Mutschler
- The Ohio State University - OARDC  |  David Francis
- Pennsylvania State University  |  Majid Foolad
- North Carolina State University - MHCREC  |  Dilip Panthee
- University of Florida - GCREC  |  Jay W. Scott
- USDA - Beltsville  |  John Stommel
- University of California - Davis  |  Dina St. Clair
- Asian Vegetable Research & Development Center  |  Peter Hanson
- Other publicly funded breeding programs as time allows

11:40  |  **Potentials for improved disease control through integrated interdisciplinary research**  |  
Martha Mutschler, Cornell University, Ithaca, New York

12:00  |  **Lunch**  |  (TBRT registrants)  |  Balcony terrace

1:00 pm  |  **Session II - Area Reports**  |  Old Sacramento Ballroom
Moderator - Mike Kuehn, Harris Moran, Davis, California
Sequence, areas and speakers will be confirmed at meeting

- Western US/Mexico  |  Felix Sequern
- Florida/Eastern US  |  Mark Barineau
- California Processing  |  Steve Schroeder
- Eastern North America processing  |  George Collier
- Middle East/Turkey  |  Yaniv Rotem
- Spain  |  Pablo Goldschmeid
- European Glasshouse  
- Brazil  
- China  

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42nd Tomato Breeders Roundtable, June 2009
2:00  **Session III – Panel Discussion: Public and Private Breeder Symbiosis**

Public and private programs need each other in order to meet the needs of the tomato industry. Twenty years ago germplasm was exchanged freely. Recently intellectual property protection has become an increasing complex issue ranging from simple material transfer agreements to complicated royalty schemes that can trail on for several intercrossing generations. Representatives from both sides of a typical IP exchange agreement (a public and a private program) will explain what is required for each to succeed.

Public / processing  David Francis, The Ohio State University
Public / fresh market  Jay W. Scott, University of Florida
Private / fresh market  Mark Barineau, Redi Plants Corporation, Florida
Private / processing  Rich Ozminkowski, HeinzSeed, California

3:00  Break

**Session IV - Germplasm and organization**  Old Sacramento Ballroom
*Moderator: David Francis, The Ohio State University, OARDC, Wooster*

3:20  **USDA Plant Introduction Center update**  
Larry Robertson, USDA-ARS PGRU, Geneva, New York

3:40  **Fine mapping of a gametophytic factor controlling unilateral incompatibility in tomato**  
Wentao Li and Roger Chetelat, CM Rick Tomato Genetics Resource Center, Dept of Plant Science, UC Davis

4:00  **SolCAP review**  
Allen Van Deynze, Seed Biotechnology Center, UC Davis

4:20  **SNP diversity in cultivated tomato**  
Joanne Labate, Larry Robertson, Angela Baldo, USDA-ARS PGRU, Geneva

4:40  **Utilization of a new mutation population in tomato**  
Allen Van Deynze, Seed Biotechnology Center, UC Davis

7:00 pm  **TBRT Banquet**  Old Sacramento Ballroom
*(Registrants and ticketed guests)*

**Sustainability of the food system: an emerging landscape**  
Keynote Speaker: Molly Jahn - Dean & Director Univ. of Wisconsin - CALS
Tuesday, June 30  

**Field Trip**  
(TBRT Registrants only)

7:30 am  
**Assemble front Lobby of Embassy Suites**

8:00  
**Bus departs promptly!!**
California Tomato Industry Experts:
- Gene Miyao, Extension Specialist, UC Davis
- Scott Picanso, TS & L Seed, Woodland, California

8:30  
**Long Term Research on Agricultural Systems at UC Davis**
“The world’s youngest 100-year experiment”
- Kate Scow - Director, LTRAS

10:00  
**Depart for Durst Organic Growers, Inc.**  
Esparto, California
Growers of heirloom tomatoes and organic produce.

12:00  
**Lunch at RH Phillips Winery**  
Esparto, California
Tour of RH Phillips Winery

2:00 pm  
**Depart for Robert Mondavi Institute for Food & Wine Science**
Sensory and Quality Facilities at UC Davis

2:30  
**Arrival & Introduction**
Dr. Clare Hasler, Executive Director, Robert Mondavi Institute
Dr. James Seiber, Chair, Dept of Food Science & Technology, UC Davis

2:45  
**Tour of Robert Mondavi Institute for Wine & Food Science**
Tour Leaders:  
(split into 4 groups)
- Dr. Clare Hasler, Executive Director, RMI
- Dr. Diane Barrett Fruit & Vegetable Products Specialist,
- Zann Gates, Center of Fruit & Veg. Quality Program Representative
- Karin Hiolle, RMI Administrator/Event Coordinator

3:15  
**Heirloom tomato presentation**  
RMI Silverado Vineyards Sensory Theater
Georgeanne Brennan, Author, Educator and Journalist

3:30  
**Sensory evaluation**
Dr. Marco Li Calzi, Department of Viticulture and Enology, UC Davis

3:45  
**Sensory evaluation (split into two groups)**
- Aroma evaluation  
Sensory Building Lobby
- Taste and Texture evaluation  
Sensory Theater
4:15  Wrap-up Discussion  RMI Silverado Vineyards Sensory Theater

5:15  Return to Embassy Suites

Dinner on your own  Enjoy what Old Sacramento has to offer

7:30 pm  Tomato CGC meeting  Sutter Boardroom
David Francis - Chairman, Tomato CGC

Wednesday, July 1  Traditional Sessions  Old Sacramento Ballroom

Session V – Breeding for disease resistance
Moderator: Jay W. Scott, University of Florida, GCREC

8:00 am  Localization and mapping of Sw-7, a tomato spotted wilt resistance gene
          Mikel Stevens, *John Scott, Keri Dockter, Derek O Neil, David Price
          Brigham Young University, Utah and *University of Florida, GCREC

8:20  Biological properties of Tomato apex necrosis virus
          Bryce Falk, Dept Plant Pathology, UC Davis

8:40  What we know today about Tomato torado virus and Tomato marchitez virus
          Menno ter Maat, Paul Maris, De Ruiter Seeds, The Netherlands

9:00  Mapping new loci for TYLCV resistance and assessing the effects of resistance genes
          Jeremy Edwards, Jay Scott, University of Florida, GCREC

9:20  Development of prebreeding tomato lines resistance to powdery mildews
          Michael D. Coffey, University of California, Riverside

9:40  Fine mapping and potential for PCR based markers for Frl
          Mikel Stevens, Whitney Call, Ryan Holmes, *Matthew Robbins
          Brigham Young University and *The Ohio State University
10:00 Break

10:20 Resistance to root-knot nematodes
Valerie Williamson, Dept of Nematology, UC, Davis

10:40 Resistance to M. incognita strain W-1 virulent on Mi-1 gene
Liliana Stamova, California Tomato Research Institute, Davis, CA

11:00 Identification of QTL associated with resistance to bacterial spot of tomato, race T4
Sam Hutton, Jay Scott, University of Florida, GCREC

11:20 Discussion - Global emerging disease issues

11:50 Group Photo - Lobby

12:00 Lunch (TBRT Registrants)

Session VI - Breeding methods and markers
Old Sacramento Ballroom
Moderator: Allen Van Deynze, Seed Biotechnology Center, UC Davis

1:00 A bird’s eye view of marker applications in commercial corn breeding
Jim Walker, Kevin Cook, Monsanto Vegetable Seed Division, California

1:30 Development of a 13-SNP multiplex assay for 5 disease resistance loci in tomato
Ainong Shi, Richard Vierling,*Richard Grazzini, Indiana Crop Improvement Association/Purdue University, and *GardenGenetics, Pennsylvania

1:50 Mapping and selection of bacterial spot resistance in complex populations
David Francis, Sung-Chur Sim, Hui Wang, Matt Robbins,*Wencai Yang
The Ohio State University, OARDC and *China Agricultural University

2:10 SGN – Breeder’s toolbox development
Joyce Van Eck, Namma Menda, Lukas Mueller, Jim Giovannoni,
The Boyce Thompson Institute, Ithaca, New York

2:30 The impact of new DNA marker technologies on tomato breeding
Charles Pick, DNA Landmarks, Quebec, Canada

2:50 Break
Session VII - Breeding for specialty environments  
Old Sacramento Ballroom  
Moderator: Steve Schroeder, Nunhems, Lockeford, California

3:10  Breeding for organic tomatoes  
Richard Bernard, Teresa Allan, Seeds of Change, Sebastopol, California

3:30  High throughput breeding for root traits improvement: Cold tolerance  
Rafael Meissner, Tali Mendel, Hishtil RM, Ltd., Israel

3:50  Improving tomato rootstocks  
Menno ter Maat, De Ruiter Seeds, Zuid-Holland, The Netherlands

4:10  Breeding for high temperature fruit set in processing tomato  
Steven Schroeder, Nunhems, Lockeford, California

4:30  Discussion - Environmental impact on breeding programs

Session VIII - Reports and business  
Moderator: Steve Schroeder, Nunhems, California

4:45  Report of Tomato CGC  
David Francis  
Tomato Genetics Cooperative update  
Jay Scott  
Next meeting location

5:30  TBRT 2009 Concludes  
Travel Safely

Dinner – on your own

Optional: Baseball game  
Additional tickets available for purchase at River Cats Box office

6:15 pm  Game attendees assemble in lobby for stroll to Raley Field

7:05  AAA Baseball: Sacramento River Cats vs. Fresno Grizzlies