10th IWGTD REIMS

10TH International Workshop on Grapevine Trunk Diseases

BOOK OF ABSTRACTS

REIMS, 4-7 JULY 2017

ICGTD International Council on Grapevine Trunk Diseases

cost

URVVC Vignes et Vins de Champagne

Université de Reims Champagne-Ardenne

Institut Georges Chappaz de la Vigne et du Vin en Champagne

OIV

ORGANISING COMMITTEE

Prof. Florence Fontaine
Chair of COST ACTION FA1303 "Sustainable control of grapevine trunk diseases"
Université de Reims Champagne-Ardenne Unité de Recherche Vignes et Vins de Champagne - EA 4707 Laboratoire Stress, Défenses et Reproduction des Plantes - Moulin de la Housse - Bât. 18 BP 1039 51 687 Reims Cedex 2 - France Phone: +33 326913318 / +33 633926475
florence.fontaine@univ-reims.fr

Vincenzo Mondello
Isabelle Roberrini
Patricia Trotel-Aziz
Clémence Rotolo
Enrico Battiston
Cindy Coppin
Cátia Pinto
Aurélie Songy

WORKSHOP SECRETARIAT

Florence Fontaine florence.fontaine@univ-reims.fr
Vincenzo Mondello vincenzo.mondello@univ-reims.fr

SCIENTIFIC COMMITTEE

Florence Fontaine - *Chairperson*

Chair of COST ACTION FA1303

"Sustainable control of grapevine trunk diseases"

Eliane Abou-Mansour [1]*

Josep Armengol [1]*

Stéphane Compant [1]*

Stefano Di Marco [1]*

Jochen Fischer [2]

David Gramaje [1]*

Lucia Guérin-Dubrana [2]*

François Halleen [2]

Erzsebet Karaffa [1]*

Philippe Larignon [2]

Jordi Luque [2]

Vincenzo Mondello [2]

Laura Mugnai [1]*

Cecilia Rego [1]*

Patrice Rey [1]

Mark Sosnowski

José Ramón Úrbez-Torres

James Woodhall [1]*

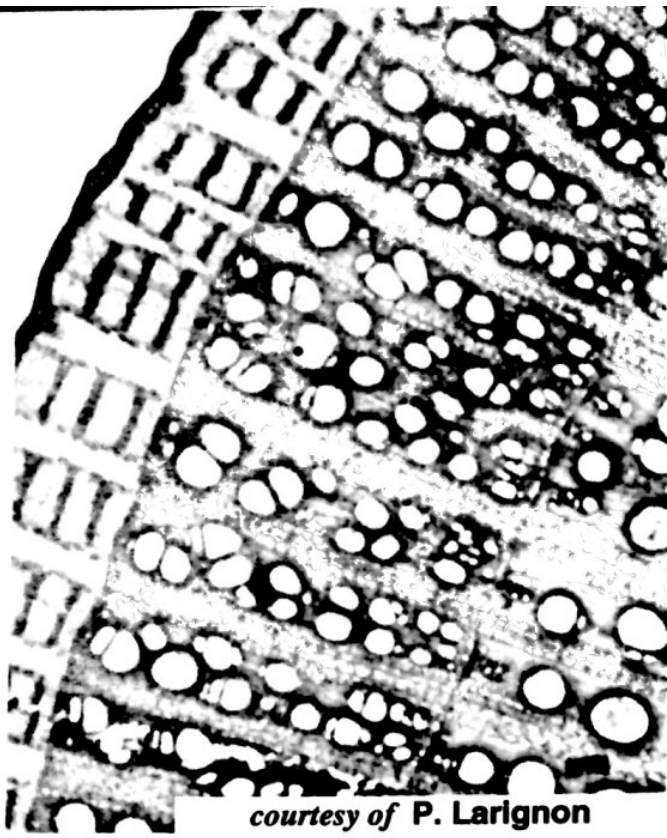
[1]*COST Action FA1303 Management Committee Member;* [2]*COST Action FA1303 Member;*

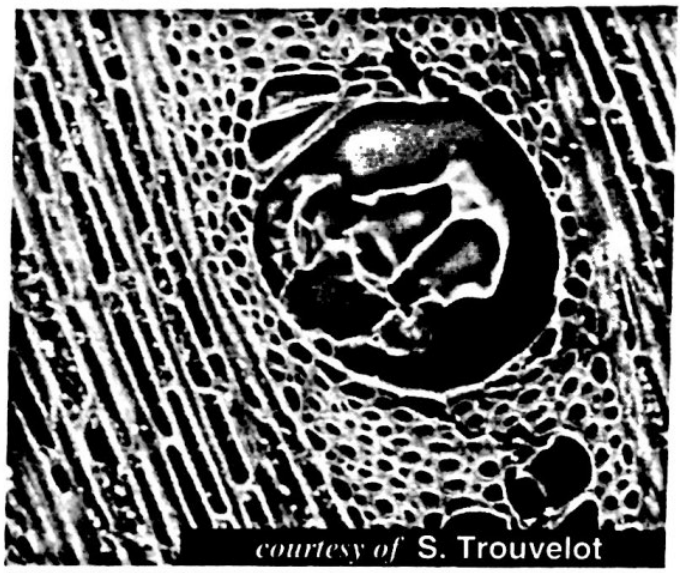
** COST Action FA1303 Working Group Leader*

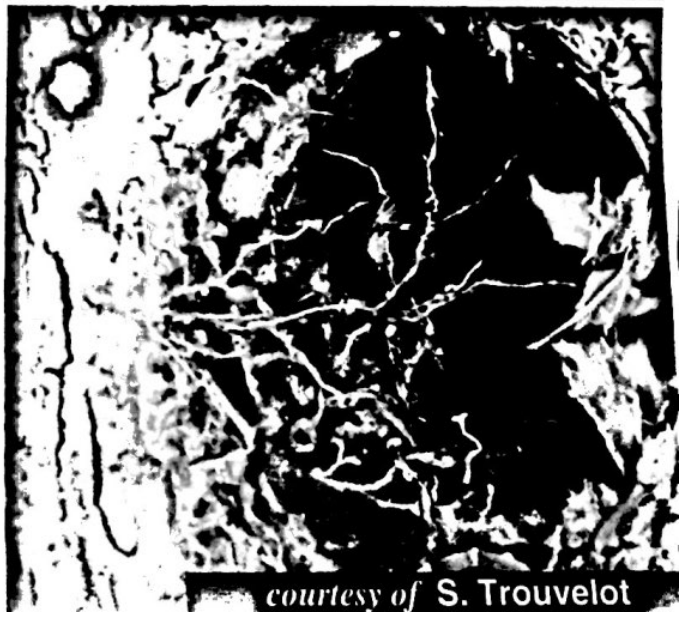
SESSION 3

Plant-pathogen interactions

Oral Contributions







SESSION 3: Plant-pathogen interactions

CO.41 – EFFECT OF TEMPERATURE ON METABOLITES PRODUCTION BY *LASIODIPLODIA THEOBROMAE* A FUNGUS CAUSING CANKER AND DIEBACK OF GRAPEVINE.

MARIA MICHELA SALVATORE[1], CARINA FELIX[2], MARINA DELLAGRECA[1], FRANCESCO SALVATORE[1], DANIELE NAVIGLIO[1], MONICA GALLO[3], MARCO GUIDA[4], ARTUR ALVES[2], ANA CRISTINA ESTEVES[2] and ANNA ANDOLFI[1]. [1]*Dipartimento di Scienze Chimiche, Università di Napoli Federico II, Complesso Universitario Monte Sant'Angelo, via Cintia, 4, 80126 Napoli, Italy.* [2]*Departamento de Biologia, CESAM, Universidade de Aveiro, Campus Universitário de Santiago, 3810-193 Aveiro, Portugal.* [3]*Dipartimento di Medicina Molecolare e Biotecnologie Mediche, Università di Napoli Federico II via Pansini 5, 80131 Napoli, Italy* [4]*Dipartimento di Biologia, Università degli Studi di Napoli "Federico II", Complesso Universitario Monte Sant'Angelo, via Cintia, 21, 80126 Napoli, Italy.*
E-mail: mari.salvatore@yahoo.it

A large number of species of the family Botryosphaeriaceae have been associated with Botryosphaeria canker and dieback of grapevines. *Lasiodiplodia theobromae* is the prevailing disease causing agent among species in the genus *Lasiodiplodia*, which may infect a wide range of plants growing in a variety of climate zones. *Lasiodiplodia theobromae* has also been associated with foliar chlorosis of host plants and may occasionally act as an opportunistic pathogen for humans. Pathogenicity of fungi is usually associated with the expression of several compounds, such as enzymes and other metabolites, involved in host/pathogen interactions. Accordingly, a number of secondary bioactive metabolites belonging to different classes are produced by *Lasiodiplodia* spp. For instance, in a recent study of strains of *L. Mediterranea* (associated with grapevine decline in Sardinia and Sicily, Italy) new metabolites have been isolated and identified: lasiojasmonates A-C; 16-*O*-acetyl-botryosphaeriolactones A and C; and lasiolactols A and B. The aim of this study was to characterize the effect of temperature on the expression of secondary metabolites by different strains of *L. Theobromae* isolated from grapevine. Preliminary investigations (via GC/MS, NMR and other analytical techniques) show that the production of secondary metabolites strongly depends, both in quality and quantity, on cultural conditions. The final objective is to isolate and characterize chemically the full spectrum of compounds produced by *L. Theobromae* under a variety of experimental conditions and to investigate their biological activity and toxicity for plants and for environmental.

Acknowledgments
This study was partially supported by FEDER funding through COMPETE program and by national funding through FCT within the research project ALIEN (PTDC/AGR-PRO/2183/2014 – POCI-01-0145-FEDER-016788) and to CESAM (UID/AMB/50017/2013 – POCI-01-0145-FEDER-007638). A Alves (IF/00835/2013), AC Esteves (BPD/102572/2014) and C Felix (BD/97613/2013) acknowledge funding from FCT. The authors also thanks to COST Action FA1303: Sustainable control of grapevine trunk diseases. COST Action is supported by the EU RTD Framework program and ESF provides the COST Office through an EC contract.