

Amélioration génétique du Peuplier exploité en TCR

Jean-Charles Bastien, Jean-Paul Charpentier, Gilles Pilate, Catherine Bastien, Véronique Jorge

► **To cite this version:**

Jean-Charles Bastien, Jean-Paul Charpentier, Gilles Pilate, Catherine Bastien, Véronique Jorge. Amélioration génétique du Peuplier exploité en TCR: FUTUROL, Module RESSOURCES LIGNO-CELLULOSIQUES - WorkPackage Connaissances sur les plantes candidates, Action R1c. 7, 2012. hal-02809662

HAL Id: hal-02809662

<https://hal.inrae.fr/hal-02809662>

Submitted on 6 Jun 2020

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

PROJET FUTUROL
LISTE DES ARTICLES A COMITE DE LECTURE ET DES THESES
ANNEES 2010 à 2016

Triée par module et par actions
Mise à jour du 01/03/16

Sommaire

Revue à Comité de Lecture – Ressources lignocellulosiques	1
Revue à Comité de Lecture – Prétraitement, Hydrolyse, Enzymes et Fermentation.....	6
Thèses Futurol soutenues ou prévues	9
Autres publications (Communications, Posters)	12

Revue à Comité de Lecture – Ressources lignocellulosiques

- [1] Cadoux, S., F. Ferchaud, C. Demay, H. Boizart, J.-M. Machet, E. Fourdinier, M. Preudhomme, B. Chabbert, G. Gosse and B. Mary (2014). "Implications of productivity and nutrient requirements on greenhouse gas balance of annual and perennial bioenergy crops." *Global Change Biology Bioenergy* **6** (4): 425-438.
<http://onlinelibrary.wiley.com/doi/10.1111/gcbb.12065/abstract>
Action R1a
- [2] Strullu, L., N. Beaudoin, I. G. de Cortázar Atauri and B. Mary (2014). "Simulation of Biomass and Nitrogen Dynamics in Perennial Organs and Shoots of *Miscanthus × Giganteus* Using the STICS Model." *BioEnergy Research* **38**: 14-22.
<http://www.sciencedirect.com/science/article/pii/S096195341100016X#>
Action R1a
- [3] Arnoult, S., M.-C. Quillet and M. Brancourt-Hulmel (2014). "Miscanthus Clones Display Large Variation in Floral Biology and Different Environmental Sensitivities Useful for Breeding." *Bioenergy Research* **7** (1): 430-441.
<http://link.springer.com/article/10.1007/s12155-013-9381-9>
Action R1b
- [4] Arnoult, S. and M. Brancourt-Hulmel (2015). "A review on miscanthus biomass production and composition for bioenergy use: genotypic and environmental variability and implications for breeding." *Bioenergy Research* **8** (2): 502-526.
<http://link.springer.com/article/10.1007/s12155-014-9524-7>
Action R1b
- [5] Arnoult, S., A. Obeuf, L. Béthancourt and M. Brancourt-Hulmel (2015). "Miscanthus clones for cellulosic bioethanol production: Relationships between biomass production, biomass production components, and biomass chemical composition." *Industrial Crops and Products* **63**: 316-328.
<http://www.sciencedirect.com/science/article/pii/S0926669014006165>
Action R1b

- [6] Arnoult, S. and M. Brancourt-Hulmel (2015). "Early prediction of miscanthus biomass production and composition based on the first six years of cultivation." *Crop Science* **55** (3): 1104-1116
<https://dl.sciencesocieties.org/publications/cs/abstracts/55/3/1104>
 Action R1b
- [7] El Malki, R., J.-P. Charpentier, V. Jorge, K. Ader, D. Navarro, J.-G. Berrin, J.-C. Bastien, C. Bastien and V. Segura (2016). "QTL mapping for wood chemical properties and saccharification potential in black poplar (*Populus nigra*)." *Biotechnology for Biofuels* (soumis).
 Action R1c
- [8] Lesur, C., M. Bazot, F. Bio-Beri, B. Mary, M. H. Jeuffroy and C. Loyce (2013). "Assessing nitrate leaching during the three-first years of *Miscanthus X giganteus* from on-farm measurements and modeling." *Global Change Biology Bioenergy* **6** (4): 439-449.
<http://onlinelibrary.wiley.com/doi/10.1111/gcbb.12066/abstract>
 Action R1h
- [9] Lesur, C., M.-H. Jeuffroy, D. Makowski, A. B. Riche, I. Shield, N. Yates, M. Fritz, B. Formowitz, M. Grunert, U. Jorgensen, P. E. Laerke and C. Loyce (2013). "Modeling long-term yield trends of *Miscanthus x giganteus* using experimental data from across Europe." *Field Crops Research* **149**: 252-260.
<http://www.sciencedirect.com/science/article/pii/S0378429013001767>
 Action R1h
- [10] Lesur, C., M. Bazot, F. Bio-Beri, M. Lorin, M.-H. Jeuffroy and C. Loyce (2014). "Assessing nitrate leaching during the three-first years of *Miscanthus X giganteus* from on-farm measurements and modeling." *Global Change Biology Bioenergy* **6** (4): 439-449.
<http://onlinelibrary.wiley.com/doi/10.1111/gcbb.12066/abstract>
 Action R1h
- [11] Lesur-Dumoulin, C., A. Laurent, R. Reau, L. Guichard, R. Ballot, M. H. Jeuffroy and C. Loyce (2016). "Design and ex ante assessment of cropping systems prototypes including energy crops in Eastern France." *Renewable Agriculture and Food Systems* (soumis).
 Action R1h
- [12] Ferchaud, F., G. Vitte, F. Bornet, L. Strullu and B. Mary (2015). "Soil water uptake and root distribution of different perennial and annual bioenergy crops." *Plant and Soil* **388** (1-2): 307-322.
<http://link.springer.com/article/10.1007/s12155-015-9625-y>
 Action R2a
- [13] Strullu, L., F. Ferchaud, N. Yates, I. Shield, N. Beaudoin, I. G. de Cortazar-Atauri, A. Besnard and B. Mary (2015). "Multisite Yield Gap Analysis of *Miscanthus x giganteus* Using the STICS Model." *Bioenergy Research* **8** (4): 1735-1749.
<http://link.springer.com/article/10.1007%2Fs11104-014-2335-y>
 Action R2a
- [14] Ferchaud, F., G. Vitte and B. Mary (2016). "Short term changes in soil carbon stocks under perennial and annual bioenergy crops." *Global Change Biology Bioenergy*: (soumis)
 Action R2a

- [15] Ferchaud, F., G. Vitte, J. M. Machet, N. Beaudoin, M. Catterou and B. Mary (2016). "The fate of cumulative applications of 15N-labelled fertiliser in perennial and annual bioenergy crops." Agriculture Ecosystems & Environment: (soumis)
Action R2a
- [16] Ferchaud, F. and B. Mary (2016). "Drainage and nitrate leaching assessed during seven years under perennial and annual bioenergy crops." Bioenergy Research (soumis)
Action R2a
- [17] Dufossé, K., B. Gabrielle, J.-L. Drouet and C. Bessou (2013). "Using Agroecosystem Modeling to Improve the Estimates of N₂O Emissions in the Life-Cycle Assessment of Biofuels." Waste and Biomass Valorization **4**: 593-606.
<http://link.springer.com/article/10.1007%2Fs12649-012-9171-1>
Action R2b
- [18] Dufossé, K., J. Drewer, B. Gabrielle and J.-L. Drouet (2014). "Long-term Miscanthus stand : end-of-life statement and removal effects on C-N cycles." Biomass & Bioenergy **69**: 198-210.
<http://www.sciencedirect.com/science/article/pii/S0961953414003365>
Action R2b
- [19] Dufossé, K., B. Gabrielle, J.-L. Drouet and C. Querleu (2015). "What is the most sustainable biomass supply mix for bioethanol production ? Example of the Burgundy region in France." International Journal of LCA: (sous presse).
Action R2b
- [20] Dufossé, K., B. Gabrielle and J.-L. Drouet (2016). "Agro-ecosystem modeling can aid in the optimization of biomass feedstock supply." Journal of Cleaner Production (soumis).
Action R2b
- [21] Guénon, R., J.-C. Bastien, P. Thiébeau, G. Bodineau and I. Bertrand (2016). "Impacts of a two-year growth bio-energy plantation with poplar and willow on carbon and nutrient dynamics." Plant and Soil: (soumis)
Action R2c
- [22] Berthelot, A., A. Bouvet, C. Richter and G. Gibaud (2015 ?). "Potentialités de production de biomasse de quelques espèces forestières sur sols acides." Revue Forestière Française **5**: 695-713.
<http://documents.irevues.inist.fr/handle/2042/56615>
Action R2d ; ONF ICIF
- [23] Deleuze, C., C. Micheneau, C. Richter, V. Boulanger, Y.-M. Gardette, A. Brêthes, G. Gibaud, L. Augusto, C. Dupont, J.-Y. Gautry, J.-Y. Fraisse and C. Rantien (2012). "Le retour des cendres de bois en forêt : opportunités et limites." RDV techniques ONF **35** (Hiver 2012): 16-28.
http://www.onf.fr/lire_voir_ecouter/++oid++1746/@@display_media.html
Action R2e ; ONF ICIF
- [24] Rakotoarison, H., P. Cailly, C. Deleuze, C. Richter, A. Bouvet, A. Berthelot, B. Chopard, T. Sardin and F. Bigot de Morogues (2016). "Plantations résineuses en conditions forestières : analyse économique des itinéraires dédiés et semi-dédiés pour augmenter la production de bois." Revue Forestière Française: (soumis)
Action R2f ; ONF ICIF

- [25] Bocqueho, G. and F. Jacquet (2010). "The adoption of switchgrass and miscanthus by farmers: Impact of liquidity constraints and risk preferences." Energy Policy **38** (5): 2598-2607.
<http://www.sciencedirect.com/science/article/pii/S030142151000011X>
 Action R3c
- [26] Bocqueho, G., F. Jacquet and A. Reynaud (2013). "Reversal and magnitude effects in long-term time preferences: Results from a field experiment." Economics Letters **120** (1): 108-111.
<http://www.sciencedirect.com/science/article/pii/S0165176513001778>
 Action R3c
- [27] Bocqueho, G., F. Jacquet and A. Reynaud (2014). "Expected utility or prospect theory maximisers? Assessing farmers' risk behaviour from field-experiment data." European Review of Agricultural Economics **41** (1): 135-172.
<http://erae.oxfordjournals.org/content/41/1/135>
 Action R3c
- [28] Martin, L., J. Wohlfahrt, F. Le Ber and M. Benoit (2012). "L'insertion territoriale des cultures énergétiques pérennes : le cas de dix agriculteurs en Côte d'Or." Espace Géographique **41** (2): 138-153.
<http://www.mgm.fr/PUB/EG/EG212R.html>
 Action R3d
- [29] Rizzo, D., L. Martin and J. Wohlfahrt (2014). "Miscanthus spatial location as seen by farmers: A machine learning approach to model real criteria." Biomass & Bioenergy **66**: 348-363.
<http://www.sciencedirect.com/science/article/pii/S0961953414001160>
 Action R3d
- [30] Bourgeois, P.-A. Jayet and N. Ben Fradj (2014). "How Cost-Effective is a Mixed Policy Targeting the Management of Three Agricultural N-pollutants?" Environmental Modeling & Assessment **19** (5): 389-405.
<http://link.springer.com/article/10.1007%2Fs10666-014-9401-y>
 Action R3e
- [31] Ben Fradj, N., P. Aghajanzadeh-Darzi and P.-A. Jayet (2016). "Competition between food, feed, and (bio)fuel as a major implication of the second generation feedstock production at the European scale: a model assessment." Land Use Policy **52**: 195-205.
<http://www.sciencedirect.com/science/article/pii/S0264837715004238>
 Action R3e
- [32] Ben Fradj, N. and P.-A. Jayet (2016). "Sensitivity of perennial crop supply: Application of Faustmann's rule in deterministic and stochastic cases." (soumis)
 Action R3e
- [33] Ben Fradj, N., D. Lorne, S. Tchung-Ming and P.-A. Jayet (2016). "Prospective spatial analysis of biomass supply for cellulosic ethanol industry in France." (soumis).
 Action R3e

- [34] Wohlfahrt, J., C. Deleuze, K. Idir, H. Rakotoarison and C. Richter (2016). "Municipality-owned forests' fuelwood production potential: understanding timber harvesting levels in the Ardennes district, France." Land use Policy: (soumis).
Action R3g

- [1] Rammal, A., E. Perrin, B. Chabbert, I. Bertrand, A. Habrant, B. Lecart and V. Vrabie (2015). "Evaluation of Lignocellulosic Biomass Degradation by Combining Mid- and Near-Infrared Spectra by the Outer Product and Selecting Discriminant Wavenumbers Using a Genetic Algorithm." *Applied Spectroscopy* **69** (11): 1303-1312.
<http://www.ingentaconnect.com/content/sas/sas/2015/00000069/00000011/art00012>
Action PT5a
- [2] Bastien, G., G. Arnal, S. Bozonnet, S. Laguerre, F. Ferreira, R. Faure, B. Henrissat, F. Lefevre, P. Robe, O. Bouchez, C. Noiro, C. Dumon and M. O'Donohue (2013). "Mining for hemicellulases in the fungus-growing termite *Pseudacanthotermes militaris* using functional metagenomics." *Biotechnology for Biofuels* **6** : 78.
<http://www.biotechnologyforbiofuels.com/content/6/1/78>
Action PT5c
- [3] Arnal, G., G. Bastien, N. Monties, A. Abot, V. A. Leberre, S. Bozonnet, M. O'Donohue and C. Dumon (2015). "Investigating the Function of an Arabinan Utilization Locus Isolated from a Termite Gut Community." *Applied and Environmental Microbiology* **81** (1): 31-39
<http://aem.asm.org/content/81/1/31>
Action PT5c
- [4] Arnal, G., G. Bastien, P. Alvira, S. Melgosa-Vidal, M. Gro Rydahl, W. G. T. Willats, C. Dumon and M. O'Donohue (2016). "High-throughput characterization of a subset of proteins isolated from microbiota belonging to the termite *Pseudacanthotermes militaris*." (soumis).
Action PT5c
- [5] Ravalason, H., S. Grisel, D. Chevret, A. Favel, J.-G. Berrin, J.-C. Sigoillot and I. Herpoel-Gimbert (2012). "Fusarium verticillioides secretome as a source of auxiliary enzymes to enhance saccharification of wheat straw." *Bioresource Technology* **114** : 589-596.
<http://www.sciencedirect.com/science/article/pii/S0960852412004233>
Action PT5d
- [6] Bennati-Granier, C., S. Garajova, C. Champion, S. Grisel, M. Haon, S. Zhou, M. Fanuel, D. Ropartz, H. Rogniaux, I. Gimbert, E. Record and J.-G. Berrin (2015). "Substrate specificity and regioselectivity of fungal AA9 lytic polysaccharide monoxygenases secreted by *Podospora anserina*." *Biotechnology for Biofuels* **8**.
<http://biotechnologyforbiofuels.biomedcentral.com/articles/10.1186/s13068-015-0274-3>
Action PT5f
- [7] Poggi-Parodi, D., F. Bidard, A. Pirayre, T. Portnoy, C. Blugeon, B. Seiboth, C. P. Kubicek, S. Le Crom and A. Margeot (2014). "Kinetic transcriptome analysis reveals an essentially intact induction system in a cellulase hyper-producer *Trichoderma reesei* strain." *Biotechnology for Biofuels* **7**.
<http://biotechnologyforbiofuels.biomedcentral.com/articles/10.1186/s13068-014-0173-z>
Action PE1a

- [8] Bey, M., J. G. Berrin, L. Poidevin and J. C. Sigoillot (2011). "Heterologous expression of *Pycnoporus cinnabarinus* cellobiose dehydrogenase in *Pichia pastoris* and involvement in saccharification processes." *Microbial Cell Factories* **10** : 113.
<http://www.microbialcellfactories.com/content/10/1/113>
 Action PE1c
- [9] Bey, M., S. Zhou, L. Poidevin, B. Henrissat, P. M. Coutinho, J.-G. Berrin and J.-C. Sigoillot (2013). "Cello-Oligosaccharide Oxidation Reveals Differences between Two Lytic Polysaccharide Monooxygenases (Family GH61) from *Podospira anserina*." *Applied and Environmental Microbiology* **79** (2): 488-496.
<http://aem.asm.org/content/79/2/488>
 Action PE1c
- [10] Jourdir, E., F. Ben Chaabane, L. Poughon, C. Larroche and F. Monot (2012). Simple Kinetic Model of Cellulase Production by *Trichoderma Reesei* for Productivity or Yield Maximization. *Chemical Engineering Transactions* **27** : 313-318.
<http://www.aidic.it/cet/12/27/053.pdf>
 Action PE1c
- [11] Jourdir, E., L. Poughon, C. Larroche, F. Monot and F. Ben Chaabane (2012). "A new stoichiometric miniaturization strategy for screening of industrial microbial strains: application to cellulase hyper-producing *Trichoderma reesei* strains." *Microbial Cell Factories* **11** : 70.
<http://www.microbialcellfactories.com/content/11/1/70>
 Action PE1c
- [12] Jourdir, E., C. Cohen, L. Poughon, C. Larroche, F. Monot and F. Ben Chaabane (2013). "Cellulase activity mapping of *Trichoderma reesei* cultivated in sugar mixtures under fed-batch conditions." *Biotechnology for Biofuels* **6** : 79.
<http://www.biotechnologyforbiofuels.com/content/6/1/79>
 Action PE1c
- [13] Jourdir, E., L. Poughon, C. Larroche and F. Ben Chaabane (2013). "Comprehensive Study and Modeling of Acetic Acid Effect on *Trichoderma reesei* Growth." *Industrial Biotechnology* **9** (3): 132-138.
<http://online.liebertpub.com/doi/abs/10.1089/ind.2013.0002>
 Action PE1c
- [14] Couturier, M., J. Feliu, M. Haon, D. Navarro, L. Lesage-Meessen, P. M. Coutinho and J. G. Berrin (2011). "A thermostable GH45 endoglucanase from yeast: impact of its atypical multimodularity on activity." *Microbial Cell Factories* **10** : 103.
<http://www.microbialcellfactories.com/content/10/1/103>
 Action PE2a
- [15] Couturier, M., J. Feliu, S. Bozonnet, A. Roussel and J.-G. Berrin (2013). "Molecular Engineering of Fungal GH5 and GH26 Beta-(1,4)-Mannanases toward Improvement of Enzyme Activity." *Plos one* **8** (11) : e79800.
<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0079800>
 Action PE2a

- [16] Couturier, M., A. Roussel, A. Rosengren, P. Leone, H. Stalbrand and J.-G. Berrin (2013). "Structural and Biochemical Analyses of Glycoside Hydrolase Families 5 and 26 beta-(1,4)-Mannanases from *Podospora anserina* Reveal Differences upon Manno-oligosaccharide Catalysis." *Journal of Biological Chemistry* **288** (20): 14624-14635.
<http://www.jbc.org/content/288/20/14624>
 Action PE2a
- [17] Couturier, M. and J. G. Berrin (2013). The Saccharification Step : The Main Enzymatic Components. In *Lignocellulose Conversion*. V. Faraco, ed. p 93-110. Springer, Berlin, Heidelberg.
http://link.springer.com/chapter/10.1007/978-3-642-37861-4_5#page-1
 Action PE2a
- [18] Dondelinger, E., N. Aubry, F. Ben Chaabane, C. Cohen, J. Tayeb and C. Rémond (2016). "Contrasted enzymatic cocktails reveal the importance of cellulases and hemicellulases activity ratios for the hydrolysis of cellulose in presence of xylans." *Applied Microbiology and Biotechnology*: (soumis)
 Action H1e
- [19] Marc, J., D. Feria-Gervasio, J.-R. Mouret and S. E. Guillouet (2013). "Impact of oleic acid as co-substrate of glucose on "short" and "long-term" Crabtree effect in *Saccharomyces cerevisiae*." *Microbial Cell Factories* **12** : 83.
<http://www.microbialcellfactories.com/content/12/1/83>
 Action F2c
- [20] Montheard, J., S. Garcier, E. Lombard, X. Cameleyre, S. Guillouet, C. Molina-Jouve and S. Alfenore (2012). "Assessment of *Candida shehatae* viability by flow cytometry and fluorescent probes." *Journal of Microbiological Methods* **91** (1): 8-13.
<http://www.sciencedirect.com/science/article/pii/S016770121200228X>
 Action F5a
- [21] Bideaux, C., J. Montheard, X. Cameleyre, C. Molina-Jouve and S. Alfenore (2016). "Metabolic flux analysis model for optimizing xylose conversion into ethanol by the natural C5-fermenting yeast *Candida shehatae*." *Applied Microbiology and Biotechnology* **100** (3): 1489-1499
<http://link.springer.com/article/10.1007%2Fs00253-015-7085-0>
 Action F5a

Thèses Futurol soutenues ou prévues

2012

- [1] Bastien, Géraldine (2012). Découverte de nouvelles enzymes de dégradation des polysaccharides végétaux par métagénomique fonctionnelle. Ecole Doctorale SEVAB. INSA. Toulouse, soutenance le 08/06/2012.
Action PT5c
- [2] Bey, Mathieu (2012). Etude d'une CDH et de glycosyl hydrolases de la famille 61 : Implication dans les processus de dégradation des lignocelluloses. Ecole Doctorale Sciences de la Vie et de la Santé. Université Aix-Marseille. Marseille, soutenance le 12/12/2012.
Action PE1c
- [3] Bocqueho, Géraldine (2012). Risque, temps et adoption des cultures pérennes énergétiques : exemple du cas français. Ecole Doctorale ABIES. AgroParisTech. Paris, soutenance le 06/07/2012.
Action R3c
- [4] Couturier, Marie (2012). Nouvelles enzymes pour l'amélioration de l'hydrolyse des lignocelluloses : identification, étude structure-fonction et ingénierie de deux mannanases fongiques. Ecole doctorale Sciences de la Vie et de la Santé. Université Aix-Marseille. Marseille, soutenance le 07/12/2012.
Action PE2a
- [5] Jourdir, Etienne (2012). Modélisation et optimisation de la production de cellulases par *Trichoderma reesei* pour les bioraffineries lignocellulosiques. Ecole Doctorale Sciences pour l'Ingénieur. Université Blaise Pascal. Clermont-Ferrand, soutenance le 19/09/2012.
Action PE1c
- [6] Lesur, C. (2012). Cultiver *Miscanthus x giganteus* en parcelles agricoles : du diagnostic agro-environnemental à la conception-évaluation *ex ante* de systèmes de culture à vocation énergétique. Ecole Doctorale ABIES. AgroParisTech. Paris, soutenance le 21/12/2012.
Action R1h

2013

- [7] Ben Fradj, Nosra (2013). Analyse micro-économique spatialisée des enjeux environnementaux de l'introduction de productions agricoles à finalité énergétique. Ecole Doctorale ABIES. AgroParisTech. Paris, soutenance le 14/01/2013.
Action R3ef
- [8] Dufossé, Karine (2013). Bilan environnemental des cultures lignocellulosiques pour la production de bioéthanol de 2ème génération. Ecole Doctorale ABIES. AgroParisTech. Paris, soutenance le 19/12/2013
Action R2b

- [9] El Malki, Redouane (2013). Architecture génétique des caractères cibles pour la culture du peuplier en taillis à courte rotation. Ecole Doctorale santé, sciences biologiques et chimie du vivant. Université d'Orléans. Orléans, soutenance le 21/01/2013.
Action R1c
- [10] Marc, Jillian (2013). Modulation par approches microbiologique et génétique de la synthèse d'acide acétique lors de la production d'éthanol sous métabolisme oxydo-réductif chez *Saccharomyces cerevisiae*. Ecole Doctorale SEVAB. INSA. Toulouse, soutenance le 26/09/2013.
Action F2c
- [11] Montheard, Julie (2013). Amélioration des connaissances de la physiologie de *Candida shehatae* pour une quantification des phénomènes biologiques et leur modélisation lors de la fermentation alcoolique des pentoses. Ecole Doctorale SEVAB. INSA. Toulouse, soutenance le 26/09/2013.
Action F5a

2014

- [12] Arnal, Grégory (2014). Discovery and characterization of biomass-degrading enzymes and enzyme systems in termite gut microbial ecosystems. Ecole Doctorale SEVAB. INSA. Toulouse, soutenance le 12/09/2014.
Action PT5c
- [13] Arnoult, S. (2014). Contribution à la définition d'idéotypes de miscanthus valorisables pour la production de bioéthanol 2ème génération et perspectives en sélection. Ecole Doctorale SMRE. Université des Sciences et Techniques de Lille. Lille, soutenance le 29/09/2014.
Action R1b
- [14] Huron, Maïté (2014). Modélisation cinétique de l'hydrolyse enzymatique de la biomasse lignocellulosique. Université de Grenoble. Grenoble, soutenance le 22/10/2014.
Action H1a
- [15] Martin, Laura (2014). Modéliser l'insertion territoriale du *Miscanthus x giganteus* à partir des décisions des agriculteurs : une approche exploitant le modèle du raisonnement à partir de cas. Ecole doctorale Sciences et Ingénierie des Ressources, Procédés, Produits, Environnement. Université de Lorraine. Nancy, soutenance le 01/12/2014.
Action R3d
- [16] Poggi-Parodi, Dante (2014). Une approche de biologie systémique pour développer des souches industrielles performantes de *Trichoderma reesei*, soutenance le 24/11/2014.
Action PE1a

2015

- [17] Ferchaud, Fabien (2015). Etude des bilans d'eau, d'azote et de carbone dans des agrosystèmes dédiés à la production de biomasse en fonction des espèces et des pratiques culturales. Ecole doctorale ABIES. AgroParisTech. Paris, soutenance le 26/06/2015.
Action R2a

2016

- [18] Bennati-Granier, Chloé (2016). Nouvelles enzymes fongiques pour l'amélioration de la dégradation de la biomasse lignocellulosique : Etude des « Lytic Polysaccharide Monooxygenases » (LPMOs). Ecole doctorale Sciences de la Vie et de la Santé. Université d'Aix-Marseille. Marseille, soutenance le 02/02/2016.
Action PT5f

Autres publications (Communications, Posters)

Synthèse par module et par années, au 01/03/16

NB sur Action		Type						
Module	Année	_Comm.	_Poster	Article	Projet Article	Thèse	Total	
▼ Fermentation	2010	2					2	
	2011	1	1				2	
	2012	2	1	1			4	
	2013			1		2	3	
	2014	1					1	
	2016			1			1	
Somme Fermentation		6	2	3		2	13	
▼ Hydrolyse	2012		1				1	
	2013	2					2	
	2014	1				1	2	
	2016				1		1	
Somme Hydrolyse		3	1		1	1	6	
▼ Pré-traitement	2011		2				2	
	2012		2	2		1	5	
	2013	2	1				3	
	2014	1				1	2	
	2015			3		1	4	
	2016	4			1		5	
Somme Pré-traitement		7	5	5	1	3	21	
▼ Prod Enzyme	2011			2			2	
	2012		1	5		3	9	
	2013	1	3	3			7	
	2014	1	1	1		1	4	
Somme Prod Enzymes		2	5	11		4	22	
▼ Ressources	2009	1					1	
	2010	1	1	1			3	
	2011	6	1	1			8	
	2012	9	5	5		3	22	
	2013	1	3	4		2	10	
	2014	3	4	5		2	14	
	2015			6		1	7	
	2016			1	11		12	
Somme Ressources		21	14	23	11	8	77	
Total		39	27	42	13	18	139	