

# CURRICULUM VITAE

## Etat civil

**Marion-Poll Frédéric**  
Né en 1956

## Situation à l'Académie :

**Elu correspondant en 2016** ~~et membre en 20..\*~~  
**Section 6 Sciences de la vie**

Groupe de travail \*  
Fonction exercée\*

## Rubriques à renseigner :

### Professeur AgroParisTech

#### Coordonnées:

##### Professionnelles\* :

**Adresse principale\*** AgroParisTech, Département Sciences de la Vie et Santé, 16 rue Claude Bernard, 75231 Paris cedex 05, France

**Adresse secondaire :** UMR 9191 EGCE (Evolution, Génomes, Comportement, Ecologie), Equipe PACS - CNRS - Bat 14a Avenue de la Terrasse - F-91198 Gif-sur-Yvette Cedex, France

**Région de rattachement\* :** Ile-de-France

**N° portable\* :** 06 22 11 80 34

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**Adresse e.mel professionnelle\* :** frederic.marion-poll@agroparistech.fr

**Formations\* :** Ingénieur agronome INA P-G, DEA Neurosciences, Thèse Docteur Ingénieur,

### HDR

**Carrière (principaux postes occupés)\* :** Enseignant-Chercheur INA P-G / AgroParisTech

**Domaines d'expertise (6 au maximum)\* :** Neurosciences, Entomologie, Ecologie chimique,

### Protection des cultures

**Mots clés\* :** Interactions insectes-plantes, Ecologie Chimique, Protection des cultures, Entomologie

Distinctions et prix éventuels

Fonctions actuelles ou récentes : Professeur AgroParisTech, Chercheur associé CNRS, Adjunct professor Penn State

Activités académiques ou professionnelles : Enseignant-chercheur (grade : PR1)

Publications, Rapports ou Articles (10 maximum) :

1. Kwon, H., M. Ali Agha, R. C. Smith, R. J. Nachman, **F. Marion-Poll** and P. V. Pietrantonio (2016). "Leucokinin mimetic elicits aversive behavior in mosquito *Aedes aegypti* (L.) and inhibits the sugar taste neuron." PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA 113(25): 6880-6885: DOI: 10.1073/pnas.1520404113.
2. French A Agha MA, Mitra A, Yanagawa A, Sellier MJ, **Marion-Poll F** (2015) *Drosophila* bitter taste(s). *FRONTIERS IN INTEGRATIVE NEUROSCIENCE* 9, Article Number: 58
3. Devambe I, Agha MA, Mitri C, Bockaert J, Parmentier ML, **Marion-Poll F** et al. (2013) G alpha o is required for L-canavanine detection in *Drosophila*. *PLoS ONE* 8, Article Number: e63484
4. Poivet E, Rharrabe K, Monsempe C, Glaser N, Rochat D, Renou M, **Marion-Poll F**, Jacquin-Joly E (2012) The use of the sex pheromone as an evolutionary solution to food source selection in caterpillars.

- NATURE COMMUNICATIONS* **3**, Article Number: 1047
5. Ozaki K, Ryuda M, Yamada A, Utoguchi A, Ishimoto H, Calas D, **Marion-Poll F**, Tanimura T, Yoshikawa H (2011) A gustatory receptor involved in host plant recognition for oviposition of a swallowtail butterfly. *NATURE COMMUNICATIONS* **2**, Article Number: 542
  6. Wright G, Mustard JA, Simcock NK, Ross-Taylor AAR, McNicholas LD, Popescu A, **Marion-Poll F** (2010) Parallel reinforcement pathways for conditioned food aversions in the honeybee. *CURRENT BIOLOGY* **20**, 2234-2240
  7. Degen T, Dillmann C, **Marion-Poll F** et al. (2004) High genetic variability of herbivore-induced volatile emission within a broad range of maize inbred lines. *PLANT PHYSIOLOGY* **135**, 1928-1938
  8. Hiroi M, **Marion-Poll F**, Tanimura T (2002) Differentiated response to sugars among labellar chemosensilla in *Drosophila*. *ZOOLOGICAL SCIENCE* **19**, 1009-1018
  9. Blight MM, LeMetayer M, Pham-Delègue MH, Pickett, JA, **Marion-Poll F**, Wadhams LJ (1997) Identification of floral volatiles involved in recognition of oilseed rape flowers, *Brassica napus* by honeybees, *Apis mellifera*. *JOURNAL OF CHEMICAL ECOLOGY* **23**, 1715-1727
  10. **Marion-Poll F**, Tobin R (1992) Temporal coding of pheromone pulses and trains in *Manduca sexta*. *JOURNAL OF COMPARATIVE PHYSIOLOGY A-NEUROETHOLOGY SENSORY NEURAL AND BEHAVIORAL PHYSIOLOGY* **171**, 505-512

Activités éditoriales : editeur académique PLOS ONE, comité éditorial Phytoma

Short Bio (anglais)

Frederic Marion-Poll graduated in agronomy at Institut National Agronomique Paris-Grignon and specialized in crop protection and neurosciences. After a PhD thesis on the European corn borer olfactory system, he developed his research on olfaction and taste in insects, in order to better understand plant – insect interactions and to provide new ways to control pest insects. He then moved to study antifeedants and the evolution of taste receptors, using lepidoptera larvae and *Drosophila* as models. He became interested in the nutrition requirements and feeding behavior of insects raised for feed or food. In his capacity as a teacher, he developed several courses in crop protection and neurosciences mainly at AgroParisTech. During his career, he did two sabbatical stays of one year each, first at the University of Arizona in Tucson (USA) in the Division of Neurosciences headed by Professor John Hildebrand where he studied pheromone olfaction in the sphinx moth, and then at the Research School of Biological Sciences of the Australian National University in Canberra (Australia), in the group of Professor Ramaswamy where he studied the physiology of the carbonic acid receptors in the honeybee. He also developed active academic relations with colleagues abroad, notably with the entomology department at Penn State (USA) where he was nominated adjunct professor.