



## **Publications**

### **Patents:**

1. H.-G. Breitinge, U. Breitinge, D. Youssef, **Karim Raafat** and L. Youssef "Extracts from sponge Amorphinopsis species and their use for treatment of various disorders". Brit. UK Pat. Appl. (2013), GB 2500423 A 20130925" GENEVA, Patent No. WO/2013/140364 (WO2013140364 A1) was published on September 2013.

### **Books:**

2. **Karim Raafat**. "*The Top 100 Phyto remedies and Caregiving*". Dar Al-Nahda Al-Arabia, Beirut. ISBN: 614-442-540-4. DOI: 10.13140/RG.2.1.309.6.5527. January 2016.



3. **Karim Raafat**. "*Natural Care Cosmetics*". Dar Al-Nahda Al-Arabia, Beirut. ISBN: 978-614-442-549-0.  
December 2016.

#### Book Chapters:

4. F. Saleh, N. El-Darra, and **Karim Raafat** "*Red sour cherry for the treatment of diabetes mellitus*".  
Bioactive Food as Dietary Interventions for Diabetes 2<sup>nd</sup> Edition. El-Sevier, France. ISBN:  
99780128138229. DOI: 10.1016/B978-0-12-813822-9.00033-3 January 2019.

#### Scientific Papers:

5. M. Saab, **Karim Raafat**, H. ElMaradny. “Transdermal Delivery of Capsaicin Nanoemulgel: Optimization, Skin Permeation and in Vivo Activity against Diabetic Neuropathy” *Advanced Pharmaceutical Bulletin*, October 2021.
6. **Karim Raafat**, Nada Darra, Fatima Saleh, Hiba Rajha, and Nicolas Louka “Infrared-assisted extraction and HPLC-analysis of *Prunus Armeniaca* L. pomace and detoxified-kernel and their antidiabetic effects” *Journal of Phytochemical Analysis*, August 2017 (Impact Factor = 2.3) DOI:10.1002/pca.2723.
7. **Karim Raafat**, Nada Darra and Fatima Saleh “Gastroprotective and anti-inflammatory effects of *Prunus cerasus* Phytochemicals and their possible mechanisms of action” *Journal of Traditional and Complementary Medicine*, June 2019 (Impact Factor = 2.2).
8. **Karim Raafat** and Sally El-Zahaby “Niosomes of active *Fumaria officinalis* phytochemicals: antidiabetic, antineuropathic, anti-inflammatory, and possible mechanisms of action” *Chinese Medicine*, April 2020 (Impact factor = 2.5) DOI: 10.1186/s13020-020-00321-1.

9. **Karim Raafat**, Nada Darra, Fatima Saleh, Hiba Rajha, and Nicolas Louka “Optimization of Infrared-assisted Extraction of Bioactive Lactones from *Saussurea lappa* L. and their effects against Gestational Diabetes” *Pharmacognosy Magazine*, December 2018 (Impact Factor = 1.6).
10. **Karim Raafat** and Mario Wurglics “Phytochemical analysis of *Ficus carica* L. active compounds possessing anticonvulsant activity" *Journal of Traditional and Complementary Medicine*, January 2018 (Impact Factor = 2.2).
11. **Karim Raafat** and Abdalla El-Lakany “Phytochemical and Antinociceptive Investigations of *Anemone coronaria* Active Part Ameliorating Diabetic Neuropathy Pain” *Planta Medica (international – open access)*, November 2017 (Impact Factor = 2.4).
12. **Karim Raafat** “Identification of phytochemicals from North African plants for treating Alzheimer's diseases and of their molecular targets by *in silico* network pharmacology approach" *Journal of Traditional and Complementary Medicine*, August 2020 (Impact Factor = 2.2).

13. **Karim Raafat** “Phytochemical Analysis of *Juglans regia* oil and kernel Exploring their Antinociceptive and Anti-inflammatory Potentials Utilizing Combined Bio-guided GC-FID, GC-MS and HPLC Analyses” *Revista Brasileira de Farmacognosia*, accepted March 2018 (Impact Factor = 1.51).
14. **Karim Raafat**, M. Aboul-Ela and A. El-Lakany “Phytochemical and anti-neuropathic investigations of *Crocus sativus* via alleviating inflammation, oxidative stress and pancreatic beta-cells regeneration” *Chinese Herbal Medicines*, December 2019.
15. S. G. Haddad, M. Mohammad, **Karim Raafat**, F. A. Saleh “Antihyperglycemic and hepatoprotective properties of miracle fruit (*Synsepalum dulcificum*) compared to aspartame in alloxan induced diabetic mice” *Journal of Integrative Medicine*, September 2020.
16. **Karim Raafat** “Anti-inflammatory and anti-neuropathic effects of a novel quinic acid derivative from *Acanthus syriacus*” *A. Journal of Phytomedicine*, Published January 2019.

17. H. N. Rajha, G. El Khoury, N. El Darra, **Karim Raafat**, E. Debs, R. G. Maroun and N. Louka « Biological activity of *Saussurea lappa* antioxidants using solid–liquid, ultrasound and Ired-Irrad® » *Current Bioactive Compounds CBC*, Accepted February 2020.
18. **Karim Raafat** “Phytochemical and Neuroprotective Investigation on *Ferula hermonis*” *J Health and Wellbeing*, Published September 2019.
19. Nada Darra, **Karim Raafat** and Iman EL Ghazzawi “Screening of nasal and hands carriage of Methicillin-resistant *Staphylococci* colonization among Lebanese Nutraceuticals handlers ” *Journal of Pharmacognosy Journal*, August 2019.
20. **Karim Raafat** and Wael Sami "Phytochemical and Biological Evaluation of Ultrasound-Assisted Spray Dried *Lonicera etrusca* for Potential Management of Diabetes" *Records of Natural Products*. January 2018 DOI: <http://doi.org/10.25135/rnp.40.17.10.171> (Impact Factor = 1.5).
21. **Karim Raafat** and J. Habib “Phytochemical Compositions and Antidiabetic Potentials of *Salvia sclarea* L. Essential Oils” *Journal of Oleo Science*. July 2018 (Impact Factor = 1.5).



22. Dina Cheaib, **Karim Raafat**, Nada Darra “*Evaluation of phenolic content, antiradical and antibacterial activities of orange and carrot pomace extracts*” ***Journal of Health and Wellbeing***, Published September 2019.
23. L. Rifai, M. Mohammad, **Karim Raafat**, F. Saleh “*In Vitro and In Vivo Evaluation of the Protective Potential of Moringa oleifera Against Dietary Acrylamide-induced Toxicity*” ***Open Journal of Medicinal Chemistry***, Accepted May 2020.
24. **Karim Raafat** and Abdalla El-Lakany “*Combination of Rheum ribes and Metformin Against Diabetes, Thermal Hyperalgesia, and Tactile Allodynia in a Mice Model*” ***J Alternative Therapies in Health and Medicine***, Published October 2017 (Impact Factor = 1.5).
25. **Karim Raafat** “*Natural Narcotics: Phytochemical Content Analysis and their Social Hazards*” ***J Health and Wellbeing***, Published July 2018.

26. Fatima Saleh, Nada Darra and **Karim Raafat** "Hypoglycemic effects of *Prunus cerasus* L. pulp and seed extracts on Alloxan-Induced Diabetic Mice with histopathological evaluation" *Journal of Biomedicine and Pharmacotherapy*, April 2017. DOI 10.1016/j.biopha.2017.01.155 (Impact Factor = 3.5).
27. **Karim Raafat** and Fadi Hdaib "Neuroprotective effects of *Moringa oleifera*: Bio-guided GC-MS identification of active compounds in neuropathic pain model" *Journal of Chinese Journal of Integrative Medicine*, October 2016 (Impact Factor = 1.5).
28. **Karim Raafat**, Ulrike Breitinger, Laila Mahran, Nahla Ayoub and Hans-Georg Breitinger "Synergistic inhibition of glycinergic transmission in vitro and in vivo by flavonoids and strychnine" *Toxicological Sciences*, August 2010 (Impact Factor = 5.093).
29. Ulrike Breitinger, **Karim Raafat** and Hans-Georg Breitinger "Glucose is a positive modulator for the activation of human recombinant glycine receptors", *Journal of Neurochemistry*, June 2015. DOI: 10.1111/jnc.13215 (Impact Factor = 4.2).



30. Fatima Saleh, Nada Darra, **Karim Raafat** and Iman EL Ghazzawi "Phytochemical analysis of *Nigella sativa* L. Utilizing GC-MS exploring its antimicrobial effects against multidrug-resistant bacteria" *Journal of Pharmacognosy Journal*, October 2017.
31. **Karim Raafat** and Abdalla El-Lakany "Acute and Subchronic *in-vivo* effects of *Ferula hermonis* L. and *Sambucus nigra* L. and their Potential Active Isolates in a Diabetic Mouse Model of Neuropathic Pain" "*Journal of BMC Complementary and Alternative Medicine*", July 2015.DOI: 10.1186/s12906-015-0780-7 (Impact Factor = 2.94).
32. S. Al Ayoubi, **Karim Raafat**, A. El-Lakany and M. Aboul Ela "Phytochemical investigation of *Psoralea bituminosa* L. and its anti-diabetic potentials", *Pharmacognosy Journal*, April 2018 (Impact Factor = 1.1).
33. **Karim Raafat**, Maha Aboul Ela and Abdalla El-Lakany "Alloxan-Induced Diabetic Thermal Hyperalgesia, Prophylaxis and Phytotherapeutic Effects of *Rheum ribes* L. in Mouse Model". *Arch Pharmacol Researches*, March 2014 (Impact Factor = 2.30).



34. **Karim Raafat**, Rawan El-Haj, Dania Shoumar, Rana Alaaeddine, Yousra Fakhro, Natalie Tawil, Farah Shaer, Amani Daher, Natalie Awada, Ali Sabra, Khoulood Atwi, Malak Khaled, Raneem Messi, Nour Abouzaher, Mohamed Hourri and Samer Al Jallad. "Neuropathic Pain: Literature Review and Recommendations of Potential Phytotherapies". *Pharmacognosy Journal*, May 2017 (Impact Factor = 1.1).
35. M. Koleilat, **Karim Raafat**, A. El-Lakany and M. Aboul Ela "Designing monographs for *Rosmarinus officinalis* L. and *Lavandula angustifolia* L.: Two Lebanese species with significant medicinal potentials". *Pharmacognosy Journal*, May 2017 (Impact Factor = 1.1).
36. Rima Boukhary, **Karim Raafat**, Asser Ghoneim, Maha Aboul-Ela and Abdalla El-Lakany "Anti-inflammatory and Antioxidant Activities of *Salvia fruticosa*: An HPLC Determination of Phenolic Contents" published in a special issue, Pain and Inflammation: Update on Emerging Phytotherapy, Zootherapy, and Nutritional Therapies. *Evidence-Based Complementary and Alternative Medicine*, Accepted November 2015.<http://dx.doi.org/10.1155/2016/7178105> (Impact Factor = 2.18).

37. **Karim Raafat** and Wael Sami "Amelioration of Diabetes and Painful Diabetic Neuropathy by *Punica granatum* L. Extract and its Spray Dried Bio-polymeric Dispersions". *Evidence-Based Complementary and Alternative Medicine*, Published April 2014 (Impact Factor = 2.18).
38. **Karim Raafat** "Combating Diabetes and its Emerging Complications utilizing Natural Phytochemicals", *Pharmacognosy Journal*, January 2019.
39. **Karim Raafat** and Amal Omar "Phytotherapeutic activity of curcumol: Isolation, GC-MS identification, and assessing potentials against acute and subchronic hyperglycemia, tactile allodynia and hyperalgesia" "*Journal of Pharmaceutical Biology*", July 2015. DOI: 10.3109/13880209.2015.1077463 (Impact Factor = 1.6).
40. Kanj D, **Karim Raafat**, El-Lanay A, Baydoun S, Aboul Ela M, "Phytochemical Compounds Of *Cichorium intybus* by Exploring its Antioxidant and Antidiabetic Activities", *Pharmacognosy Journal*, December 2018.



41. **Karim Raafat**, Hassan Jassar, Maha Aboul Ela and Abdalla El-Lakany "Protective effects of *Origanum majorana* L. against Neurodegeneration: Fingerprinting, Isolation and *In vivo* Glycine Receptors Behavioral Model" "*International Journal of Phytomedicine*", May 2013 (Impact Factor = 1.23).
42. **Karim Raafat** "*Pain Diagnosis and Management: Challenges and Opportunities*".*J. Clin. Anesth. Manag*, March 2016. <http://dx.doi.org/10.16966/2470-9956.106>.
43. Assi M, Ela MA, **Karim Raafat**, El-Lakany "A Role of Antioxidants in the Antidiabetic Potential of Two Indigenous Lebanese *Inula* Species". *Med Aromat Plants*, June 2015 S2: 002. DOI:10.4172/2167-0412.S2-002.
44. **Karim Raafat**, Rima Boukhary, Maha Aboul Ela and Abdalla El-Lakany"Endogenous Lebanese Plants Treating Diabetes and Related Complications". *Journal of Natural Products Chemistry & Research*, August 2013.



45. **Karim Raafat** "Exploration of the Protective Effects of Some Natural Compounds against Neurodegeneration Exploiting Glycine Receptors *In vivo* Model". *Journal of Natural Products Chemistry & Research*, August 2013.
46. Baydoun S, Kanj D, **Raafat K**, Aboul Ela M, Chalak L and Arnold-Apostolides N "Ethnobotanical and Economic Importance of Wild Plant Species of Jabal Moussa Bioserve, Lebanon". *Journal of Ecosystem & Ecography*, May 2017.
47. Hesham Saleh, **Karim Raafat**, Tarek A. Temraz, Ulrike Breitinge, Nazih Noureldin and Hans-Georg Breitinge "Sarcophine and (7S, 8R)-Dihydroxydeepoxysarcophine from the Red Sea Soft Coral *Sarcophyton glaucum* as *in vitro* and *in vivo* Modulators of Glycine Receptors", *Neurotoxicology*, (IF = 3.5, Q1) July 2020.
48. **Karim Raafat**, Karim Abbara, Ulrike Breitinge, Mahmoud El-Olemy and Hans-Georg Breitinge "Comparative Phytochemical Investigation on *Ferula hermonis* Root and Shoot: Isolation, Identification,

and *In Vitro* and *In Vivo* Effects on the Inhibitory Glycine Receptors ,“*Journal of Pharmaceutical Biology*”, under publish.

### Publications and Presentations in Scientific Conferences:

49. **Karim Raafat**, M. Aboul Ela, A. El-Lakany, Junior Research Team “Chronic Pain Management: Current and Future Phytotherapies” v. Oral presentation, International Conference on Anesthesia 2020, Amsterdam, Netherlands. July 2020.
50. **Karim Raafat**, M. Aboul Ela, A. El-Lakany “Phytochemical and biological investigations of *Crocus sativus* cultivated in the University botanical garden” Oral presentation, International Conference on “Pharmaceutical and Healthcare Sciences” PHS 2019, Alexandria University, Egypt. November 2019.
51. **Karim Raafat**, Doha Masry “Phytochemical and Biological Investigation of *Rheum ribes*” poster presentation, First Italian Lebanese Forum and Scientific Day, American University in Beirut (AUB), Beirut, Lebanon. April, 2019.



52. **Karim Raafat**, Nadine Badreddine “Antinociceptive and Antioxidant Potentials of *Punica granatum*” poster presentation (Won Silver Award), Eastern Mediterranean Pharmaceutical Symposium 2018 (EMPS 2018), Amman, Jordan. July, 2018.
53. **Karim Raafat**, Amani Daher, Nour Abouzaher, Raneem Messi, Carine Hourri, Dania Kabany, Darine Jaber, Doha Masri, Nadine Badreddine, Rana Mrad, Rimaz Mneimneh and Sherine El-Kosh “Evaluation of the Anti-inflammatory Efficacy of Some Selected Phyto-remedies” poster presentation, 2nd International Conference and Exhibition on Pharmaceutical Development and Technology (Theme: Future Trends in the Development of Pharmaceuticals) Osaka, Japan. May, 2018.
54. **Karim Raafat**, Raneem Messi, Carine Hourri, Dania Kabany, Darine Jaber, Doha Masri, Nadine Badreddine, Rana Mrad, Rimaz Mneimneh and Sherine El-Kosh “Phyto-Bioactive Compounds for Amelioration of Neuropathic Pain” *Third International Pharmacy Conference Towards Best Pharmacy Practice: Enhancing Pharmacy Education (IPCF 2018)*, poster presentation, Beirut, **Lebanon**, May 2018.



55. **Karim Raafat**, Amani Daher, Nour Abouzaher, Raneem Messi, Carine Hourri, Dania Kabany, Darine Jaber, Doha Masri, Nadine Badreddine, Rana Mrad, Rimaz Mneimenh and Sherine El-Kosh “The Protective Anti-inflammatory Potentials of Some Selected Phytotherapies” *24th LAAS International Science Conference*, Beirut, **Lebanon**, April 2018.
56. **Karim Raafat** “New Narcotics: Psychological and Social Hazards” Personality and Health Psychology Conference, BAU, Oral presentation, Beirut, **Lebanon**, March 2018.
57. **Karim Raafat**, Raneem Messi, Carine Hourri, Dania Kabany, Darine Jaber, Doha Masri, Nadine Badreddine, Rana Mrad, Rimaz Mneimenh and Sherine El-Kosh “Protective effect of *Punica granatum* against diabetes-induced neuropathic pain and oxidative-stress” *1st Student Innovation and Research Conference for Arab Universities and Schools (SIRCAUS - 2018)*, Oral presentation (**Bronze Award for Best Oral Presentation**), Beirut, **Lebanon**, March 2018.



58. **Karim Raafat**, Fatima Saleh, Nada El-Darra “Phytochemical Investigation and Antidiabetic Potentials of *Prunus cerasus* L.” *23th LAAS International Science Conference*, Oral presentation, Beirut, **Lebanon**, April 2017.
59. **Karim Raafat**, Yousra Fakhro, Natalie Tawil, Farah Shaer, Amani Daher, Natalie Awada, Khoulood Atwi, Malak Khaled, Raneem Messi, Nour Abouzaher, Mohamed Hourri, Samer Al-Jallad, Bayan Moghraby, Carine Hourri, Dania Kabany, Darine Jaber, Doha Masri, Nadine Badreddine, Rana Mrad, Rimaz Mneimenh and Sherine El-Kosh “Inflammation and Related Disorders: Current and Future Phytotherapeutic Prospectives” *23th LAAS International Science Conference*, Oral presentation, Beirut, **Lebanon**, April 2017.
60. Mohamed Hourri, Samer Al-Jallad and **Karim Raafat** “Phytotherapy and the future of neuropathic pain management” *Pharma Tech 2017*, Poster presentation (**Best Poster Award**), Dubai, **UAE**, April 2017.



61. **Karim Raafat** "*Anemone coronaria and its alkaloids: In vivo Antioxidant, Antidiabetic and Antinociceptive Effects*" International Conference on Chemical Sciences & Applications (ICCSA-2016), Oral presentation, Arab Academy for Science, Technology and Maritime Transports, Alexandria, Egypt, August 2016.
  
62. **Karim Raafat** and Fadi Hadeb "*Phytherapeutic activities of Moringa oleifera L. seeds on painful diabetic neuropathy in an animal model*" 22th LAAS International Science Conference, Oral presentation, Beirut, Lebanon, April 2016.

63. **Karim Raafat**, Amal Omar, Hania Nakkash and MazenAl Haj "*Study of the potential role of Saponaria officinalis L. in diabetic neuropathy in experimental animals*"22th LAAS International Science Conference, Oral presentation,Beirut, **Lebanon**, April 2016.
64. Mariam Koleilat, **Karim Raafat**, Maha Aboul-Ela, Abdalla El-Lakany  
"*The antioxidant activities of two Lamiaceae species cultivated at Beirut Arab University botanical garden*"22th LAAS International Science Conference, poster presentation,Beirut, **Lebanon**, April 2016.
65. **Karim Raafat**, Rana Alaaeddine, Rawan El-Haj, Dania Shoumar, YousraFakhro, Natalie Tawil, Farah Shaer, AmaniDaher, Natalie Awada, Ali Sabra, KhouloodAtwi, MalakKhaled, Raneem Messi, Nour Abouzaher, Mohamed Hourri and Samer Al-Jallad "*Role of Phytotherapy as a Future Prospective in*



*Management of Neuropathic Pain*"22th LAAS International Science Conference, poster presentation, Beirut, **Lebanon**, April 2016.

66. M. Mekdash, **Karim Raafat** and M. Dakdouky"*Synthesis, characterization, and antioxidant activity of a series of Quinoxaline-1,4-Di-N-oxide analogues* "22th LAAS International Science Conference, poster presentation, Beirut, **Lebanon**, April 2016.

67. **Karim Raafat** "Drug-Nutraceuticals Interactions: An Overview", *Arab Pharmacist Unit Congress 2015 (APPROPRIATE USE OF MEDICATION: A GUARANTEE FOR A SAFE SOCIETY)*, Oral presentation Beirut, Lebanon, June 2015.

68. Mohamed Assi, Maha Aboul Ela, **Karim Raafat** and Abdalla El-Lakany "*Inula viscosa and Inula vulgaris Ameliorates Peripheral Neuropathy in Mice*"21th LAAS International Science Conference, Oral presentation, Beirut, **Lebanon**, April 2015.



69. **Karim Raafat** and Abdalla El-Lakany "Combination Phyto-Metformin Therapy to Diabetes and Related Complications "Fixed Combination 2015 International Conference, Oral presentation, Berlin, **Germany**, March 2015.
70. Maha Aboul Ela, **Karim Raafat** and Abdalla El-Lakany "*Phytotherapeutic potentials of selected Middle East natural products*"Pharmaceutica-2015International Science Conference, Oral presentation, Dubai, **UAE**, March 2015.
71. Ulrike Breitinger, Rasha Radwan, Nourhan Karam, Noha Samir, **Karim Raafat**, Hans-Georg Breitinger"Ion channels as pharmaceutical targets – mechanistic characterization and the search for novel therapeutics"3rd FUE International Conference on Pharmaceutical Sciences, Cairo, **Egypt**, February 2015.
72. **Karim Raafat**, Maha Aboul Ela and Abdalla El-Lakany "Antidiabetic and Antinociceptive Potential of Selected Eastern-Mediterranean Medicinal Plants"5<sup>th</sup>World Congress in Diabetes and Metabolism, Oral presentation,Las Vegas, **USA**, November 2014.



73. **Karim Raafat** and Amal Omar "Curcumol "a Bioactive Natural Product of *Curcuma longa* L."Ameliorates Hyperglycemia and Attenuates Thermal Hyperalgesia in a Diabetic Mouse Model "20th LAAS International Science Conference, Oral presentation, Beirut, **Lebanon**, March 2014.
74. Rima Boukhary, **Karim Raafat**, Asser Ghoneim, Maha Aboul Ela and Abdalla El-Lakany "*Salvia libanotica fruticosa*, as an Important Antioxidant and Anti- inflammatory Herb Indigenous to Lebanon"20th LAAS International Science Conference, Oral presentation,Beirut, **Lebanon**, March 2014.
75. Mohamed Assi, Maha Aboul Ela, **Karim Raafat** and Abdalla El-Lakany "Antioxidant and Antidiabetic Potential of Two Lebanese *Inula* species on Alloxan-Induced Diabetic Mice"62<sup>nd</sup>International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research - GA2014, Guimaraes, **Portugal** September 2014 (Published in *J Planta Medica* Issue 16 ·Volume 80 ·October 2014).
76. **Karim Raafat**, Rima Boukhary, Maha Aboul Ela and Abdalla El-Lakany "Endogenous Lebanese Plants Treating Diabetes and Related Complications"International Conference and Exhibition on



*Pharmacognosy, Phytochemistry & Natural Products (Pharmacognosy 2013), Oral presentation, Hyderabad, India, October 2013.*

77. **Karim Raafat** (2013) “Pharmacological effects of Endemic Lebanese Plants” *The Second Plants in our Life International Conference*, Beirut, **Lebanon**, May (2013).
78. Ulrike Breitinger, **Karim Raafat** and Hans-Georg Breitinger (2012) “Glycine receptor modulation by sugars” *Molecular Life Sciences*, GBM International Conference, Bochum, **Germany**, (2012).
79. Ulrike Breitinger, **Karim Raafat** and Hans-Georg Breitinger (2012) “Ion channels as trans membrane signaling devices- structure, function and modulation” *Biomembrane Days International Conference*, Potsdam-Golm, **Germany**, September (2012).
80. Ulrike Breitinger, **Karim Raafat** and Hans-Georg Breitinger. (2011) “Glucose and related sugars are allosteric potentiators of glycine receptor-mediated signaling” *Molecular Life Sciences 2011*



*.International Fall Meeting of the German Society for Biochemistry and Molecular Biology, Frankfurt, Germany, September (2011).*

81. Breitinger, H.-G., **Raafat, K.**, Abd El Galil, R., Mahran, L., Youssef, D., Breitinger, U. (2010) “Novel modulators of ligand-gated ion channels – mechanism-based in vitro and in vivo approaches to identify new drugs targeting the inhibitory glycine receptor”. *International Conference of Frontiers in Medicinal Chemistry (GDCh)*, Münster, **Germany**, March (2010).
82. **Karim Raafat**, Laila Mahran, Ulrike Breitinger, Nahla Ayoub, Hans-Georg Breitinger (2009) “A kinetic approach identifies target sites and synergistic effects of drugs – potentiated inhibition of glycine receptor channels by flavonoids and strychnine”. *International Conference Signal transmission in health and disease*, Aachen, **Germany**, Sept. (2009).
83. Hans-Georg Breitinger, **Karim Raafat**, Nahla Ayoub, (2009) “From function to structure mechanism based approaches for the identification of drug target sites on the inhibitory glycine receptor”. *Journal of Neurochemistry* (2009).



84. Breitinger, H.-G., **Raafat, K.**, Abd El Galil, R., Mahran, L., Youssef, D., Breitinger, U. “New Agonists and Antagonists for the Inhibitory Glycine Receptor Identified From Marine Extracts and Combinatorial Approaches”  
The 1<sup>st</sup> Euro-Mediterranean Conference on Marine Natural Products (EMCMNP-I), 2008, Sharm El-Sheikh, **Egypt**. (2008).
85. Breitinger, H.-G., **Raafat, K.**, Abd El Galil, R., Mahran, L., Becker, C.-M., Youssef, D., Breitinger, U. “Combinatorial searches reveal new modulators and suggest a novel mechanism of activation for the inhibitory glycine receptor” 6<sup>th</sup> *Forum of European Neuroscience 2008*, **Geneva, Switzerland**. (2008).
86. Breitinger, H.-G., **Raafat, K.**, Breitinger, U., Youssef, D., Hess, G. P. “Mechanism-based characterization of multiple drug-receptor interactions and search of new ion channel modulators” *Neuronal signalling mechanisms in health and disease - Annual meeting of the Study group Neurochemistry*, Hamburg, Germany (2007).