

Gaurav Sablok
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Bioinformatics
Institute for Biochemistry and Biology
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Research Interest: Bioinformatics | Deep Learning | DevOps | Generative AI | Knowledge Graphs

Highly communicative, task oriented, feature responsive, time oriented, approachable, solution seeker and initiative taker focussed person, working on bioinformatics involving genomes, transcriptomes, metagenomes and metatranscriptomes focussing on datasets coming from the plant, bacterial and fungal genome (Illumina Miseq, NextSeq, NovaSeq, PacBio, Oxford Nanopore). My interest and expertise also dwells across data analytics, machine and deep learning and devops. I have taken initiatives and established computing clusters and also specific blades. I am skilled in both pbs and slurm based high performance computing clusters, devops management and uses git, docker, kubernetes, terraform for container orchestration. When I am not writing code, I am reading and learning new code.

- I code across Python, R, Ruby, Awk, Shell, NuShell, PowerShell, Hashicorp, Shiny, Streamlit, Ruby on Rail, Django.
- Static documentation generation using the Markdown, ReadTheDocs, Sphinx and MKdocs.
- Static markdown deployment using Jekyll and Ruby versioning using Github docs.
- Templating engine jinja and jinja2, jq and yq.
- I'm learning Julia, API Development for graphs and i dont code in C anymore and sometimes still do.
- I'm open to collaborating on Bioinformatics, Deep Learning, Large Language Models, Generative AI, and DevOPs.

Research/Teaching Academic appointments:

1. January 2024 - Academic Staff Member, Universitat Potsdam, Germany
2. 2022-2023: Self employed
3. July 2017- Dec 2021: Postdoctoral Researcher, Finnish Museum of Natural History, Finland.
4. Aug 2016-Jan 2017: University Fellow, University of Connecticut, Storrs, USA.
5. Sept 2014-Sept 2016: Research Fellow, University of Technology Sydney, Australia.
6. Sept 2011-Sept 2014: CoCoPro, Fondazione Edmund Mach, IASMA, Italy.
7. Dec 2010-Aug 2011: Visiting Post-doc Researcher, Huazhong Agricultural University, China.
8. 2006-2009: PhD Candidate, Jai Narian Vyas University (JNVU), India.
9. 2005-2006: Adjunct Lecturer (Biotechnology), MGIAS (University Affiliated college), India
10. 2006-2009: PhD, JNV University, India.
11. 2005: Master's (Biotechnology, First position), MGIAS, University of Rajasthan, Jaipur, India.
12. 2003: Bachelor's (Biotechnology) – LMCST, Jai Narian Vyas University, India

Publications ([§]Corresponding Author; *Contributed Equally):

1. Zanardo, M., Giannattasio, M., **Sablok, G.** et al. (2023).Metabarcoding analysis of the bacterial

- and fungal communities during the maturation of preparation 500, used in biodynamic agriculture, suggests a rational link between horn and manure. **Environ Dev Sustain** <https://doi.org/10.1007/s10668-023-03144-w>
2. Gagnon E, Hilgenhof R, Orejuela A, McDonnell A, **Sablok G**, Aubriot X, Giacomini L, Gouvêa Y, Bohs L, Dodsworth S, Martine C, Poczai P, Knapp S, Särkinen T (2020) Phylogenomic data reveal hard polytomies across the backbone of the large genus *Solanum* (Solanaceae) **American Journal of Botany** **109**:580-601
 3. Lehtonen S, Poczai P, **Sablok G**, Hyvönen J, Karger DN, Flores J (2020) Exploring the phylogeny of the marattialean ferns. **Cladistics**. **36**:569-593.
 4. Jike W, Li M, Zadra N, Barbaro E, **Sablok G**, Bertorelle G, Rota-Stabelli O, Varotto C (2020). Phylogenomic proof of Recurrent Demipolyploidization and Evolutionary Stalling of the "Triploid Bridge" in *Arundo* (Poaceae) **Int J Mol Sci**.**21**:5247.
 5. **Sablok G**, Amiryousefi A, He X, Hyvönen J and Poczai P (2019) Sequencing the Plastid Genome of Giant Ragweed (*Ambrosia trifida*, Asteraceae) From a Herbarium Specimen. **Front. Plant Sci.****10**:218
 6. Jike W, **Sablok G**, Bertorelle G, Li M, Varotto C (2018). In silico identification and characterization of a diverse subset of conserved microRNAs in bioenergy crop *Arundo donax* L. **Sci Rep**. **8**:16667.
 7. Yang K, Wen X, Mudunuri S, Varma GPS, **Sablok G** (2019). Diff isomiRs: Large-scale detection of differential isomiRs for understanding non-coding regulated stress omics in plants. **Sci Rep**. **9**:1406
 8. Zanardo M, Rosselli R, Meneghesso A, **Sablok G**, Stevanato P, Engel M, Altissimo A, Peserico L, Dezuani V, Concheri G, Schlöter M, Squartini A (2018) Response of Bacterial Communities upon Application of Different Innovative Organic Fertilizers in a Greenhouse Experiment Using Low-Nutrient Soil Cultivated with *Cynodon dactylon*. **Soil Syst**. **2**: 52
 9. Sablok G, Hayward RJ, Davey PA, Santos RP, Schliep M, Larkum A, Pernice M, Dolferus R, Ralph PJ(2018). SeagrassDB: An open-source transcriptomics landscape for phylogenetically profiled seagrasses and aquatic plants. **Sci Rep**.**8**(1):2749.
 10. Mirzaei S, Mansouri M, Mohammadi-Nejad G, **Sablok G** (2018) Comparative assessment of chloroplast transcriptional responses highlights conserved and unique patterns across Triticeae members under salt stress. **Photosynth Res**. **136**:357-369.
 11. Kumar J, Debjyoti Sen Gupta, Gupta S, Dubey S, Gupta P, Singh NP, **Sablok G**. (2017). Identification, development and application of cross-species intron spanning markers in lentil. **The Crop Journal**, **6**:299-305
 12. **Gaurav Sablok**^S, Kun Yang, Chen Rui, Xiaopeng Wen (2017) tRNA derived smallRNAs: smallRNA repertoire has yet to be decoded in plants. **Front. Plant Sci.** doi: **10.3389/fpls.2017.01167**
 13. Florian Mattenberger, Beatriz Sabater-Muñoz, Christina Toft, **Gaurav Sablok**, Mario A Fares (2017) Expression properties exhibit correlated patterns with the fate of duplicated genes, their divergence, and transcriptional plasticity in *Saccharomycotina*. **DNA Research**. doi: **10.1093/dnares/dsx025**
 14. Salvatore Camiolo, **Gaurav Sablok**, Andrea Porceddu (2017) The Evolutionary Basis of Translational Accuracy in Plants. **G3: GENES, GENOMES, GENETICS**. doi: **10.1534/g3.117.040626**.
 15. **Gaurav Sablok**^{S*}, Ting-Wen Chen*, Chi-Ching Lee, Chi Yang, Ruei-Chi Gan, Jill L. Wegrzyn, Nicola L. Porta, Kinshuk C. Nayak, Po-Jung Huang, Claudio Varotto, Petrus Tang (2017) ChloroMitoCU: Codon patterns across organelle genomes for functional genomics and evolutionary applications. **DNA Research**. doi: **10.1093/dnares/dsw044**
 16. Kun Yang*, **Gaurav Sablok***, Guang Qiao, Qiong Nie, Xiaopeng Wen (2017) isomiR2Function: An integrated workflow for identifying microRNA variants in plants. **Front.**

Plant Sci. 8:322.

17. Ashish Kumar Srivastava, **Gaurav Sablok**, Michael Hackenberg, Uday Deshpande, Penna Suprasanna (2017) Thiourea priming enhances salt tolerance through co-ordinated regulation of microRNAs and hormones in Brassica juncea **Sci. Rep. 7:4549.**
18. Manoj Kumar, Matthew P. Padula, Peter Davey, Mathieu Pernice, Zhijian Jiang, **Gaurav Sablok**, Loretto Contreras-Porcia, Peter J. Ralph (2017) Proteome Analysis Reveals Extensive Light Stress-Response Reprogramming in the Seagrass *Zostera muelleri* (Alismatales, Zosteraceae) Metabolism. **Front. Plant Sci. 7:2023.**
19. Zdravka Ivanova, **Gaurav Sablok**, Evelina Daskalova, Gergana Zahmanova, Elena Apostolova, Galina Yahubyan, Vesselin Baev (2017) Chloroplast genome analysis of resurrection tertiary relict *Haberlea rhodopensis* highlights genes important for desiccation stress response. **Front. Plant Sci 8:204.**
20. **Gaurav Sablok**^s, Suresh B Mudunuri, David Edwards, Peter J Ralph (2016) Chloroplast Genomics: Expanding resources for an evolutionary conserved miniature molecule with enigmatic applications. **Current Plant Biology 7-8:34–38.**
21. Alireza Ahadi, **Gaurav Sablok**^s, and Gyorgy Hutvagner (2017) miRTar2GO: a novel rule-based model learning method for cell line specific microRNA target prediction that integrates Ago2 CLIP-Seq and validated microRNA–target interaction data. **Nucleic Acids Research 45: e42**
22. Xiaoyong Sun, Lin Wang, Jiechao Ding, Yanru Wang, Jiansheng Wang, Xiaoyang Zhang, Yulei Che, Ziwei Liu, Xinran Zhang, Jiazhen Ye, Jie Wang, **Gaurav Sablok**, Zhiping Deng, Hongwei Zhao (2016) Integrative analysis of *Arabidopsis thaliana* transcriptomics reveals intuitive splicing mechanism for circular RNA. **FEBS Letters 590: 3510-3516.**
23. Mathieu Pernice, Sutinee Sinutok, **Gaurav Sablok**, Audrey S. Commault, Martin Schliep, Peter I. Macreadie, Mike A. Rasheed, Peter J. Ralph (2016) Molecular physiology reveals ammonium uptake and related gene expression in the seagrass *Zostera muelleri*. **Marine Environmental Research 122:126-134**
24. Marina Zanardo, Riccardo Rosselli, Andrea Meneghesso, **Gaurav Sablok**, Piergiorgio Stevanato, Adriano Altissimo, Lisanna Perserico, Valentina Dezuani, Giuseppe Concheri, Michael Schloter, Andrea Squartini (2016) Dynamics of soil prokaryotes catalyzing nitrification and denitrification in response to different fertilizers in a greenhouse experiment with *Cynodon dactylon*. **European Journal of Soil Biology 76:83-91.**
25. Debjyoti Sen Gupta, Peng Cheng, **Gaurav Sablok**, Dil Thavarajah, Pushparajah Thavarajah, Clarice Coyne, Shiv Kumar, Michael Baum, Rebecca McGee (2016) Development of a panel of unigene derived polymorphic EST-SSR markers in lentil using public database information. **The Crop Journal 4: 425-433**
26. Peter A. Davey, Mathieu Pernice, **Gaurav Sablok**, Anthony Larkum, Huey Tyng Lee, Agnieszka Golicz, David Edwards, Rudy Dolferus, Peter Ralph (2016) The emergence of molecular profiling and omics techniques in seagrass biology; furthering our understanding of seagrasses. **Functional Integrative Genomics.16:465-80.**
27. HueyTyng Lee, Agnieszka A. Golicz, Philipp E. Bayer, Yuannian Jiao, Haibao Tang, Andrew H. Paterson, **Gaurav Sablok**, Rahul R. Krishnaraj, Chon-Kit Kenneth Chan, Jacqueline Batley, Gary A. Kendrick, Anthony W.D. Larkum, Peter J. Ralph, David Edwards (2016) The genome of a southern hemisphere seagrass species (*Zostera muelleri*). **Plant Physiol. 172: 272-283.**
28. Elena Gottardini, Antonella Cristofori, Elisa Pellegrini, Nicola LaPorta, Cristina Nali, Paolo Baldi, **Gaurav Sablok** (2016). Suppression subtractive hybridization and NGS reveal differential transcriptome expression profiles in Wayfaring Tree (*Viburnum lantana* L.) treated with ozone. **Front. Plant Sci. 7:713.**
29. **Gaurav Sablok**, Antonio Perez, Thac Do, Tan Yew Seong, Carlos Sanchez, Nicola La Porta, Peter J. Ralph, Andrea Squartini, Antonio Munoz, Jennifer A. Harikrishna (2016) PlantFuncSSR: Integrating First and Next Generation Transcriptomics for Mining of SSR-Functional Domains

Markers. **Front. Plant Sci.** 7:878.

30. **Gaurav Sablok**[§], Hongwei Zhao, Xiaoyong Sun (2016) Plant Circular RNAs (circRNAs): Transcriptional regulation beyond miRNAs in plants. **Molecular Plant** 9:192-194.
31. Salvatore Camilio, **Gaurav Sablok**, Andrea Porceddu (2016) Altools: a user-friendly NGS data analyser. **Biology Direct** 11:8.
32. Yuan Fu, Michele Poli, **Gaurav Sablok**, Bo Wang, Yanchun Liang, Nicola La Porta, Violeta Velikova, Francesco Loreto, Mingai Li, Claudio Varotto (2016) Dissection of early transcriptional responses to water stress in *Arundo donax* L. by unigene-based RNA-Seq. **Biotechnology for Biofuels**. 9:54
33. Biswaranjan Paital, **Gaurav Sablok**, Sunil Kumar, Sanjeev Kumar Singh, GBN Chainy (2016) Investigating the Conformational Structure and Potential Site Interactions of SOD Inhibitors on Ec-SOD in Marine Mud Crab *Scylla serrata*: A Molecular Modeling Approach **Interdiscip Sci Comput Life Sci** 8:312-318.
34. Mirosław Kwasniewski, Agata Daszkowska-Golec, Agnieszka Janiak, Chwiałkowska Karolina, Nowakowska Urszula, **Gaurav Sablok**, Szarejko Iwona (2016) Transcriptome analysis reveals the role of the root hairs as environmental sensors to maintain plant functions under water-deficiency conditions. **Journal of Experimental Botany**. 67: 1079-1094
35. Mir Asif Iquebal, Sarika Jaiswal, U.B. Angadi, **Gaurav Sablok**, Vasu Arora, Sunil Kumar, Anil Rai, Dinesh Kumar (2015) SBMDb: first whole genome putative microsatellite DNA marker database of sugarbeet for bioenergy and industrial applications. **Database: article ID bav111**.
36. Sudhakar Srivastava, Ashish Srivastava, **Gaurav Sablok**, Tejaswini Deshpande, Suprasanna Penna (2015) Transcriptomics profiling of Indian mustard (*Brassica juncea*) under arsenate stress identifies key candidate genes and regulatory pathways. **Front. Plant Sci.** 6:646.
37. **Gaurav Sablok**[§], Ashish K Srivastava, Suprasanna Penna, Vesselin Baev, Peter J Ralph (2015) isomiRs: Increasing evidences of isomiRs complexity in plant stress functional biology. **Front. Plant Sci.** 6:949.
38. Xiang Jia Min, Brian Powell, Jonathan Braessler, John Meinken, Feng Yu, **Gaurav Sablok** (2015) Genome-wide cataloging and analysis of alternatively spliced genes in cereal crops. **BMC Genomics**: 16:721.
39. **Gaurav Sablok**[§], G.V. Padma Raju, Suresh B. Mudunuri, Ratna Prabha, Dhananjaya P. Singh, Vesselin Baev, Galina Yahubyan, Peter J Ralph, Nicola La Porta (2015) ChloroMitoSSRDB 2.00: More genomes, more repeats, unifying SSRs search patterns and on-the-fly repeat detection. **Database: article ID bav084**.
40. Xiaoyan Yan[§], **Gaurav Sablok**[§], Gang Feng, Jiaxin Ma, Hongwei Zhao, Xiaoyong Sun (2015) nagnag: Identification and quantification of NAGNAG alternative splicing using RNA-Seq data. **FEBS Letters** 15:423-8.
41. Xiaoyong Sun, Fenghua Zuo, Yuanbin Ru, Jiqiang Guo, Xiaoyan Yan, **Gaurav Sablok** (2015) SplicingTypesAnno: Annotating and quantifying alternative splicing events for RNA-Seq data. **Computer Methods and Programs in Biomedicine** 119:53-62.
42. Shiliang Hu^{*}, **Gaurav Sablok**^{*}, Bo Wang, Dong Qu, Enrico Barbaro, Roberto Viola, Mingai Li and Claudio Varotto (2015) Plastome organization and evolution of chloroplast genes in Cardamine species adapted to contrasting habitats. **BMC Genomics** 16:306.
43. Mladen Naydenov, Vesselin Baev, Elena Apostolova, Nadezhda Gospodinova, **Gaurav Sablok**, Mariyana Gozmanova, Galina Yahubyan (2015) High-temperature effect on genes engaged in DNA methylation and affected by DNA methylation in *Arabidopsis*. **Plant Physiology and Biochemistry** 87: 102-108.
44. Daniel A. Nielsen, Mathieu Pernice, Martin Schliep, **Gaurav Sablok**, Thomas C. Jeffries, Michael Köhl, Daniel Wangpraseurt, Peter J. Ralph, Anthony W.D. Larkum (2015) Microenvironment and Phylogenetic Diversity of Prochloron Inhabiting the Surface of Crustose

- Didemnid Ascidians. Microenvironment and Phylogenetic Diversity of Prochloron Inhabiting the Surface of Crustose Didemnid Ascidians. **Environmental Microbiology** **10**:4121-32.
45. Agnieszka A Golicz, Martin Schliep, Huey Tyng Lee, Anthony WD Larkum, Rudy Dolferus, Jacqueline Batley, Chon-Kit Kenneth Chan, **Gaurav Sablok**, Peter J Ralph, David Edwards (2015) Genome-wide survey of the seagrass *Zostera muelleri* suggests modification of the ethylene signalling network. **Journal of Experimental Botany** **66**:1489-1498.
 46. Nicola La Porta, **Gaurav Sablok**, Giovanni Emilliani, Ari M Hietala, Alessio Giovannelli, Paolo Fontana, Emilio Potenza, Paolo Baldi (2015) Identification of Low Temperature Stress Regulated Transcript Sequences and Gene Families in Italian Cypress. **Molecular Biotechnology**: **57**:407-418.
 47. Arturo Sánchez-Paz, Adriana Muhlia-Almazan, Reinhard Saborowski, Fernando García-Carreño, **Gaurav Sablok***, Fernando Mendoza-Cano (2014) Marine viruses: the beneficial side of a threat. **Applied biochemistry and Biotechnology** **174**: 2368-2379.
 48. Vesselin Baev, Ivan Milev, Mladen Naydenov, Tihomir Vachev, Elena Apostolova, Nikolay Mehterov, Mariyana Gozmanva, Georgi Minkov, **Gaurav Sablok**, Galina Yahubyan (2014) Insight into small RNA abundance and expression in high-and low-temperature stress response using deep sequencing in Arabidopsis. **Plant Physiology and Biochemistry** **84C**: 105-114.
 49. **Gaurav Sablok**, Yuan Fu, Valentina Bobbio, Marina Laura, Giuseppe L Rotino, Paolo Bagnaresi, Andrea Allavena, Violeta Velikova, Roberto Viola, Francesco Loreto, Mingai Li, Claudio Varotto (2014) Fuelling genetic and metabolic exploration of C3 bioenergy crops through the first reference transcriptome of *Arundo donax* L. **Plant Biotechnology Journal** **12**: 554-567.
 50. Vesselin Baev, **Gaurav Sablok**, Ivan Minkov (2014) Next generation sequencing crowd sourcing at BIOCOMP: What promises it holds for us in future? **Journal of Computational Science** **5**: 325-326
 51. Yachana Jha, **Gaurav Sablok**, MHU Turabe Fazil, R B Subramanian, Sunil Kumar (2014) Insights into differential expression of RAB18 using insilico structural analysis and interaction with GTP binding in salinity stress condition. **Journal of Molecular Recognition** **27**: 521-527.
 52. Piergiorgio Stevanato, Chiara Broccanello, Filippo Biscarini, Marcello Del Corvo, **Gaurav Sablok**, Lee Panella, Alessandra Stella, Giuseppe Concheri (2014) High-throughput RAD-SNP genotyping for characterization of sugar beet genotypes. **Plant Molecular Biology Reporter** **32**:691-696.
 53. **Gaurav Sablok**[§], Jennifer Ann Harikrishna and Xiang Jia Min (2013) Next Generation Sequencing for Better Understanding Alternative Splicing: Way Ahead for Model and Non-Model Plants **Transcriptomics** **2013**: e103.
 54. **Gaurav Sablok**[§], Ivan Milev, Georgi Minkov, Ivan Minkov, Claudio Varotto, Galina Yahubyan, Vesselin Baev (2013) isomiRex: Web-based identification of microRNAs, isomiR variations and differential expression using next-generation sequencing datasets. **FEBS Letters** **587**:2629-2634.
 55. Satendra Singh, **Gaurav Sablok**, Rohit Farmer, Atul Kumar Singh, Budhayash Gautam, Sunil Kumar (2013) Molecular dynamic simulation and inhibitor prediction of Cysteine synthase structured model as a potential drug target for Trichomoniasis. **BioMed Research International Article ID** **390920**.
 56. **Gaurav Sablok**[§], XianMing Wu, Jimmy Kuo, Kinshuk Chandra Nayak, Vesselin Baev, Claudio Varotto, Fenfeng Zhou (2012) Combinational effect of dominant mutational bias and light translational selection for translation efficiency in *Solanum lycopersicum* cv. Micro-Tom. **Genomics** **101**:290-295.
 57. Mehwish Yaseen, Touqeer Ahmad, **Gaurav Sablok**, Alvaro Standardi, Ishfaq Ahmad Hafiz (2013) Role of Carbon Sources for In Vitro Plant Growth & Development. **Molecular Biology Reports** **40**: 2837-2849.

58. Mallikarjuna Rao Kovi, **Gaurav Sablok**, XuFeng Bai, Michael Wendell, Odd-Arne Rognli, HuiHui Yu, YongZhong Xing (2013) Expression patterns of photoperiod and temperature regulated heading date genes in *Oryza sativa*. **Computational Biology and Chemistry** **45:36-41**.
59. Serena Tolin, Giorgio Arrigoni, Roberto Moscatiello, Antonio Masi, Lorella Navazio, **Gaurav Sablok**, Andrea Squartini (2012) Naringenin-inducible proteome analysis in *Rhizobium leguminosarum* by isobaric tagging in quantitative mass spectrometry. **Proteomics** **13: 1961-72**.
60. **Gaurav Sablok**[§], Suresh Mudunuri, Sujan Patan, Martina Popova, Mario Fares, Nicola La Porta (2013) ChloroMitoSSRDB: ChloroMitoSSRDB: open source repository of perfect and imperfect repeats in organelle genomes for evolutionary genomics **DNA Research**. **20: 127–133**
61. Braden Walters, Gengkon Lum, **Gaurav Sablok**, Xiang Jia Min (2013) Genome-wide landscape of alternative splicing events in *Brachypodium distachyon*. **DNA Research**. **20: 163-171**.
62. Touqeer Ahmad, **Gaurav Sablok**, Tatiana Tatarinova, Qiang Xu, Xiu Xen Deng, Wen Wu Guo (2013) Evaluation of codon biology in *Citrus* and *Poncirus trifoliata* based on Genomic Features and Frame Corrected Expressed Sequence Tags **DNA Research**. **20:135–150**.
63. Kaishi Li, Meixue Yang, **Gaurav Sablok**, Jianping Fan, Fengfeng Zhou (2013) Discriminating Analysis using two feature selection strategies to improve the class prediction of acute myeloid leukemia and myelodysplastic syndrome. **Gene** **512:348-54**
64. Qilin Ma, Youxi Luo, Pi Guo, Gan Gao, Meixue Yang, **Gaurav Sablok**, Yanchun Zhang, Fengfeng Zhou (2013) Clinical effects of Xinmailong therapy in patients with chronic heart failure. **International Journal of Medical Sciences** **10:624-633**.
65. **Gaurav Sablok**[§], Arturo Sanchez-Paz, Xiang Min Wu, Jayant Ranjan, Jimmy Kuo and Ingo Bulla (2012) Genome dynamics in three different geo-graphical isolates of white spot syndrome virus (WSSV) genome. **Archives of Virology** **157:2357-62**.
66. Álvaro L Pérez-Quintero*, **Gaurav Sablok**^{§*}, Tatiana V. Tatarinova*, Jimmy Kuo, Ana Conesa, Camilo López (2012) Computational analyses of miRNAs from transcriptome of anti-malarial plant -*Artemisia annua*. **Biotechnology Letters** **34: 737-745**.
67. **Gaurav Sablok**[§], Álvaro L Pérez-Quintero, Mehedi Hassan, Tatiana V. Tatarinova, Camilo López (2011) Artificial microRNAs (amiRNAs) engineering-On how microRNA-based silencing methods have affected current plant silencing research. **Biochemical and Biophysical Research Communications** **406: 315-319**.
68. **Gaurav Sablok**^{§*}, Chun Luo*, Wan Sin Lee, Farzana Rahman, Tatiana V. Tatarinova, Jennifer Ann Harikrishna, Zhengrong Luo (2011) Bioinformatic analysis of fruit specific expressed sequence tag (EST) libraries of *Diospyros kaki* Thunb – view at the transcriptome at different developmental stages. **3Biotech** **1:35-45**.
69. **Gaurav Sablok**[§], Kinshuk Chandra Nayak, Franck Vazquez, Tatiana V. Tatarinova (2011) Synonymous codon usage, GC₃ and Evolutionary patterns across plastomes of three pooid model species – Emerging grass genome models for monocots. **Molecular Biotechnology** **49:116-128**.
70. **Gaurav Sablok**[§], P.K.Gupta, J.M.Baek, Franck Vazquez, Xiang Jia Min (2011) Genome-wide survey of alternative splicing in the grass *Brachypodium distachyon* - a emerging model biosystem for plant functional genomics. **Biotechnology Letters** **33:629-636**.
71. **G Sablok**[§], P Gahlot, AK Gupta, Pareek K and NS Shekhawat (2009) Extraction of PCR-usable DNA using modified CTAB method from the Resource Trees adapted to arid environment sustainability. **Plant Omics Journal** **2:103-109**.
72. **G Sablok**[§], NS Shekhawat (2008) Bioinformatics Analysis of Distribution of Microsatellite Markers (SSRs) / Single Nucleotide Polymorphism (SNPs) in Expressed Transcripts of *Prosopis juliflora*: Frequency and Distribution. **J Comput Sci Syst Biol** **1: 087-091**.

Peer reviewed Abstracts and Posters (§Corresponding Author):

1. Gaurav Sablok, Xiaolan He, Mari Miranto, Elina Peltomaa, Robin Sleith, Kenneth Karol, Charles Delwiche, Neil Bell, Lars Paulin, Peter Poczai, Jaakko Hyvönen (2019) First draft genome assembly of *Coleochaete orbicularis* (2019) 5th Conference on Plant Genome Evolution Conference, Spain.
2. Gaurav Sablok, Xiaolan He, Mari Miranto, Jorge R. Flores, Elina Peltomaa, Robin Sleith, Kenneth Karol, Charles Delwiche, Neil Bell, Lars Paulin, Peter Poczai, Jaakko Hyvönen (2019) Mitogenomics of *Blasia pusilla* as a tool for agricultural productivity. 3rd Agriculture and Climate Change Conference. Budapest, Hungary P102
3. Gaurav Sablok, Xiaolan He, Mari Miranto, Elina Peltomaa, Jorge R. Flores, Robin Sleith, Kenneth Karol, Charles Delwiche, Neil Bell, Lars Paulin, Peter Poczai, Jaakko Hyvönen (2019) Gametophytic transcriptomics of an early embryophyte (*Blasia pusilla*) and comparative landscape of gametophyte evolution. The 3rd International Symposium on Frontiers in Molecular Science - RNA Regulatory Networks 26–28 June 2019, Lisbon, Portugal.
4. Gaurav Sablok, Andres Orejuela, Xiaolan He, Jaakko Hyvönen, Tiina Särkinen, Péter Poczai (2019) Complete plastid genome sequence of African nightshade (*Solanum scabrum*) and its comparative plastomics across Solanales. ESEB Congress 2019, Turku, Finland.
5. Gaurav Sablok, Xiaolan He, Mari Miranto, Elina Peltomaa, Robin Sleith, Kenneth Karol, Charles Delwiche, Neil Bell, Lars Paulin, Peter Poczai, Jaakko Hyvönen (2018) Plastomics of charophycean *Coleochaete orbicularis* and embryophyte *Blasia pusilla*. European Conference on Computational Biology, poster 541.
6. Gaurav Sablok, Xiaolan He, Mari Miranto, Elina Peltomaa, Neil Bell, Lars Paulin, Peter Poczai, Jaakko Hyvönen (2018) The first draft genome of *Blasia pusilla* using SMRT sequencing. EMBO Plant Evo Abstract number: 74.
7. Ganesh Nikalje, Ashish Kumar Srivastava, **Gaurav Sablok**, Tukaram Nikam and Suprasanna Penna (2015) Integrating RNA transcriptome wide and microRNA analyses for the identification of molecular regulators associated with high salt tolerance in *Sesuvium portulacastrum* (L.) poster presented in 3rd International Plant Physiology Congress, JNU, New Delhi, India pp. 202.
8. Yuan Fu, Michele Poli, Gaurav Sablok, Violeta Velikova, Yanchun Liang, Francesco Loreto, Mingai Li, Claudio Varotto (2016) Dissection of early transcriptional responses to water stress in *Arundo donax* L. by unigene-based RNA-Seq. Proceedings of the Joint Congress SIBV-SIGA. Milano, Italy – 8/11 September, 2015. ISBN 978-88-904570-5-0
9. Min XJ, Powell B, Braessler J, Meinken J, Yu F, Sablok G (2015) Genome-wide comparative analyses of alternative splicing genes in cereal plants. Great Lakes Bioinformatics (GLBIO2015), May 16-18, Purdue University, Indiana.
10. Ralph P, Schliep M, Pernice M, Sinutok S, Webster L, Elgetti Brodersen K, Trevathan-Tackett S, Manojlovic B, Apichanangkool P, Sablok G, Davey P, Chotikarn P, Thomson A, Macreadie P, Rasheed M, Chartrand K, Larkum A (2014) System biology approach to understanding seagrass loss. The 11th International Seagrass Biology Workshop, Sanya, China.
11. M. A. Iquebal, Sarika, U. B. Angadi, Vasu Arora, Gaurav Sablok, Sunil Kumar, Anil Rai and Dinesh Kumar (2014), SBMDb: First whole genome based DNA microsatellite database of sugarbeet for bioenergy and industrial application. Proceedings of 2nd National Conference on Converging Technologies Beyond 2020 (2CTB-2010), University Institute of Engineering and Technology, Kurukshetra University, Kurukshetra, Haryana. Pp. 359
12. Antonella Cristofori, Nicola La Porta, Gaurav Sablok, Elisa Pellegrini, Paolo Baldi, Christina Nali, Fabiana Cristofolini, Elena Gottardini (2014). 454 sequencing to assess the differential expression of genes due to ozone stress in *Viburnum lantana* L.. In: Parrotta, J.E.; Moser, C.F.; Scherzer, A.J.; Koerth, N.E.; Lederle, D.R. (eds.) Sustaining forests, sustaining people: the role of research: XXIV IUFRO World Congress, Salt Lake City, USA: Commonwealth forestry association: 376. <http://hdl.handle.net/10449/24993>.

13. Nicola La Porta, Gaurav Sablok, Massimo Pindo, Andrea Squartini (2014). 454 Pyrosequencing analyses of mountain forest soils reveal a high fungal diversity and a rapid response to successional stages. In: Parrotta, J.E.; Moser, C.F.; Scherzer, A.J.; Koerth, N.E.; Lederle, D.R. (eds.) *Sustaining forests, sustaining people: the role of research*: XXIV IUFRO World Congress, Salt Lake City, USA: Commonwealth forestry association: 166. handle: <http://hdl.handle.net/10449/24992>.
14. Ashish K Srivastava, Gaurav Sablok, Micheal Hackenberg, U Deshpande, P Suprasanna (2014) Redox mediated regulation of microRNA, hormone homeostasis and its significance for regulating salt tolerance in *Brassica juncea*. "Poster Presentation" in Next Generation Scientist Conference held at John Innes Centre, Norwich, UK.
15. Piergiorgio Stevanato, Kelley Richardson, Lee Panella, Gaurav Sablok, Chiara Broccanello, Filippo Biscarini, Marcello Del Corvo, Alessandra Stella and Massimo Saccomani (2013) Identification Of SNPs Linked To Key Root Traits In Sugar Beet. *Plant & Animal Genome XXI*, San Diego, CA.
16. Gaurav Sablok, Massimo Pindo, Nicola La Porta, Andrea Squartini (2013) Soil Fungal Diversity In Six Spruce Forests: A Metagenomic Approach. Collocazione: c9.12.17 - ID Contributo: #157 at Multifunctional management of mountain forests in Europe - the role of ecosystem services. In: *Proceedings of the 9th SISEF National Congress "Multifunzionalità degli Ecosistemi Forestali Montani: Sfide e Opportunità per la Ricerca e lo Sviluppo"* (Tonon G, Ventura M, Bucci G eds). Bolzano (Italy).
17. Marina Zanardo, Riccardo Rosselli, Andrea Meneghesso, Gaurav Sablok, Piergiorgio Stevanato, Chiara Broccanello, Andreas Hofmann, Marion Engel, Adriano Altissimo, Lisanna Perserico, Valentina Dezuani, Giuseppe Concheri, Michael Schloter, Andrea Squartini (2013) Effect of different fertilizers on soil microbial communities analyzed by 16S T-RFLP and 454 sequencing. Code: 837 at V International Conference on Environmental, Industrial and Applied Microbiology, Madrid, Spain.
18. Gaurav Sablok, Fabio Zottele, Nicola La Porta, Ari M Hietala, Carl Grunnar Fossdal, Andrey Kajava (2012) FungPROTDB: Database of homorepeats in fungal proteomes and secretomes. ECCB'12-European Conference on Computational Biology, (9th-13th September, 2012), Basel, Switzerland. Poster D8.
19. Emiliani G, Sablok G, La Porta N. (2013) Comparative genomic analyses of rot fungi: insights into the evolution of specialized functions. In: *Proceedings XIII Conference Root and Butt Rot of Forest Trees*, IUFRO Working Party 7.02.01, Firenze – S. Martino di Castrozza (Trento), Italy, edited by P. Capretti, C. Comparini, M. Garbelotto, N. La Porta, A. Santini, Firenze University Press, 2013, ISBN 978-88-6655-352-6, pp. 55-57.
20. Sablok G, Nayak KC, Potenza E, Emiliani G, La Porta N (2013) Multivariate analysis revealed translational selection and mutational bias in *Heterobasidion annosum* genome. In: *Proceedings XIII Conference. Root and Butt Rot of Forest Trees*, IUFRO Working Party 7.02.01, September Firenze - S. Martino di Castrozza (Trento), Italy, edited by P. Capretti, C. Comparini, M. Garbelotto, N. La Porta, A. Santini, Firenze University Press, 2013, ISBN 978-88-6655-352-6, pp. 58-61.
21. Martina Popova, Suresh B Mudunuri, Sujan Patnana, Vesselin Baev, Gaurav Sablok[§] (2012) ChloroMitoSSRDB: open source repository of perfect and imperfect repeats in organelle genomes for evolutionary genomics presented at International Conference on Bioinformatics and System Biology, BIOCOMP, Varna, Bulgaria. F1000 Posters 2012, 3: 1466
22. Piergiorgio Stevanato, Daniele Trebbi, Chiara Broccanello, Giuseppe Concheri, Andrea Squartini, Massimo Saccomani, Gaurav Sablok (2012) High-throughput SNP genotyping in sugar beet. International Conference on Bioinformatics and System Biology, BIOCOMP, Varna, Bulgaria. F1000 Posters 2012, 3: 1513.

23. G Sablok[§], Amit K. Gupta and N S Shekhawat (2010) SPAR and SP-SSR Markers based Genetic Relatedness and Interspecies Diversity revealed in *Acacia*'s of Western Rajasthan at 2nd International Symposium on Genomics of Plant Genetic Resources, Bologna, Italy. Poster No-281.
24. Sablok G[§], Priyanka Gahlot, Amit Kumar Gupta, K Pareek and N.S. Shekhawat (2009) Standardization of Protocol for PCR Usable DNA From *Acacia nilotica* For Molecular Characterization and Sustainability of Arid Region Species at The PTCA (Plant Tissue Culture Association of India) meeting at IHBT, Palampur.
25. Sablok G[§], Priyanka Gahlot, Amit Kumar Gupta and N.S. Shekhawat (2008) Bioinformatics Identification of eSNPs/Indels in the 1467 expressed sequence tags (ESTs) of the *Prosopis juliflora*: A study on the Drought Tolerant Plant at International conference on Plant Biotechnology and Molecular Biology. Department of Biotechnology Kakatiya University Warangal.

Edited and Authored Books:

1. **Gaurav Sablok**, Sunil Kumar, Saneyoshi Uneo, Jimmy Kuo, Claudio Varotto (2015) *Advances in the Understanding of Biological Sciences using Next Generation Sequencing (NGS) Approaches* (Springer: <http://www.springer.com/us/book/9783319171562>).
2. **Gaurav Sablok**, Hikmet Budak, Peter J Ralph (2017) *Brachypodium Genomics: Advances and Development in understanding the genetic base of the model plant. Methods in Molecular Biology* (Springer: <http://www.springer.com/in/book/9781493972760>).
3. **Gaurav Sablok** et al. *Plant Metallomics and Functional Omics: A system perspective* (Springer, 2018).
4. Tatiana V. Tatarinova and **Gaurav Sablok** (2012) *DNA methylation Challenges and Mechanism*, Nova Publishers, USA. ISBN: 978-1-62417-128-4

Book Chapters:

1. NS Shekhawat and **Gaurav Sablok** (2008) *Plant Physiology and Biochemistry: Growth and Development*. NSDL NISCAIR: 1-83. doi: <http://nsdl.niscair.res.in/123456789/379>.
2. Mariyana Gozmanova, Vesselin Baev, Elena Apostolova, **Gaurav Sablok**, Galina Yahubyana (2017) Growing diversity of plant micro RNAs and MIR-derived small RNAs. *Plant Epigenetics* 49-67 (Springer, doi: 10.1007/978-3-319-55520-1_3).
3. **Sablok G**, Sun K, Sun H. NAMS (2019) Noncoding Assessment of long RNAs in Magnoliophyta Species. *Methods Mol Biol*. 1933:257-264.
4. **Sablok G**, Yang K, Wen X (2019) Protocols for miRNA Target Prediction in Plants. *Methods Mol Biol*. 1970:65-73.

Fellowships and Travel Grants (Chronological Order):

1. 2014-2016: UTS Internal Start-up Grant (\$20K) Project Role: Principal Investigator.
2. 2015-2016: KARORA: Graphic driven platform independent proteomics workflow for spectral libraries (2016) University of Technology Sydney (\$15K) Project Role: Principal Investigator.
3. 2012-2014: Awarded CoCoPro Fellowship for “Developing NGS tools and techniques for large scale methods implementation in transcriptomics and genomics.
4. 2011-2012: Awarded EU Postdoctoral Fellowship (BIOMASFOR) “Enhancing biomass potential for European forest using NGS technologies”.
5. 2012: Awarded travel grant by European Conference on Computation Biology, Swiss Institute of Bioinformatics (ECCB, 2012) for presenting FungPROTDB: Database of protein homo-repeats in fungal proteomes and secretomes.
6. 2010-2011: Chinese Fellowship “Developing transcriptomics tools for *Disopyros kaki*”.

7. 2011: Awarded Prestigious DS Kothari Post-Doctoral Fellowship by Department of Science and Technology, Government of India (Award Number BL/10/0057) on Identification of potential stress related microRNAs in Wheat and Pennisetum. Project Role: Principal Investigator.
8. 2006-2009: Awarded University Research Fellowship on Doctoral Dissertation, Computational Mining of Phyto-Diversity Resources of Rajasthan and Analysis of Simple Sequence Repeats (SSR's), Biotechnology Centre, Jai Narian Vyas University, India.
9. 2009: "Molecular Characterization and Prediction of Interspecies Diversity in Acacia's for Sustainable Rehabilitation through Agroforestry"- F7(7)/DST/SP/2009/343-355. Funding: State Department of Science and Technology, Rajasthan, India. Project Role: Principal Investigator.
10. 2008: Molecular Characterization of the Prosopis cineraria: A sustainable move towards conservation of Biodiversity of Arid Regions"- P35/DST/2008/2227. Funding: State Department of Science and Technology, Rajasthan, India. Project Role: Principal Investigator.

Grant Reviewer:

1. Ohio Agricultural Research and Development Center (OARDC) (2014), Ohio Plant Biotechnology Consortium, USA.
2. Reviewed WHITE proposal (2018) from Chargée de Projets Scientifiques, Agence Nationale de la Recherche, France.

Educational Service as Peer Reviewer in ISI Journals:

I am serving/served as Ad-hoc reviewer for following ISI journals: Silvae Genetica (Germany); Bioinformatics, (Oxford Journal); International Journal of Bioinformatics Research; African Journal of Biotechnology; 3Biotech (Springer); Molecular Biology Reports (Springer); Frontiers in Bioinformatics and Computational Biology (Frontiers); Genomics (Elsevier), Plant Omics Journal, Antonie van Leeuwenhoek Journal of Microbiology (Springer), Plant Molecular Biology Reporter (Springer), Journal of Aquatic Animal Health (Taylor and Francis), Frontiers in Genetics (Frontiers), Frontiers in Statistical Genetics (Frontiers), RNA Biology (Lande Sciences), Journal of Genetics and Genomics (Springer); Computational Molecular Biology; Journal of Structural Biology (Elsevier), Molecular Genetics and Genomics (Springer). PLOSONE, Database (Oxford Journal), Journal of Fish Diseases (Wiley), Canadian Journal of Microbiology (NRC Press), Interdisciplinary Sciences: Computational Life Sciences (Springer), Journal of Biomolecular and Structural Design (Taylor and Francis), DNA Research (Oxford Journal), Nucleic Acid Research (Oxford Journal), PeerJ, BMC Genomics, Functional and Integrative Genomics, The Plant Journal, Scientific Reports, Current Plant Biology, Journal of Forest Research.

External Thesis Adjudicator:

1. (2014) Exploring the Selectivity of Cyclin-Dependent Kinase 2 (CDK2) Protein and its inhibitors towards therapeutic target for Cancer. Department of Bioinformatics, Algappaga University, Tamilnadu, India.
2. (2014) Gene Expression Analysis of Type-2 Diabetes with Parental History-A computational approach. Department of Bioinformatics, Andhra University, Andhra Pradesh, India.
3. (2014) Structural insight into SRTA-LPXTG Blockers and Enhancement of microbial inhibition through b-cyclodextrin inclusion complex. Department of Bioinformatics, Algappaga University, Tamilnadu, India.

Editorial Boards and Activities:

1. Review and Guest Associate Editor: Frontier's in Bioinformatics and Computational Biology, Frontiers in Plant Science, Frontiers in Genetics.
2. Guest Editor Special issue: Journal of Computation Science (Elsevier).
3. Guest Editor Special issue: International Journal of Genomics (Hindwani).

4. Editor: Computational Molecular Biology (Sophia Publishers, Canada).

Bioinformatics Resources:

1. ChloroMitoSSRDB and ChloroMitoSSRDB 2.00: Webserver cum Database of Chloroplast and Mitochondrial microsatellites available at www.mcr.org.in/chloromitossrdb.
2. Plant Alternative Splicing Database: Alternative splicing database containing the splice patterns of Brachypodium available at <http://proteomics.yzu.edu/altsplice/>.
3. FrameOPT: Statistical evaluation of optimal codons in plant kingdom available at <http://mcr.org.in/frameopt>.
4. IsomiRex: Webserver for identification of the microRNA, differential expression and isomiRs from smallRNA dataset available at <http://bioinfo1.uni-plovdiv.bg/isomiRex/>.
5. SBMDB: World first Sugarbeet microsatellite database containing polymorphic SSRs for sugarbeet genome: <http://cabindb.iasri.res.in/sbmdb>.
6. PlantFuncSSRs: Functional SSRs in Plants: www.bioinfocabd.upo.es:3000.
7. miRTar2GO: microRNA prediction using CLIP-seq: <http://mirtar2go.org>.
8. ChloroMitoCU: Organelle centric platform for browsing thousands of pre-compiled codon patterns across organelle genomes: <http://chloromitocu.cgu.edu.tw/>.
9. SplicingTypesAnno: annotating and quantifying alternative splicing events for RNA-Seq data available from: <http://sourceforge.net/projects/splicingtypes/>.
10. NAGNAG Splicing: Identification and quantification of the NAGNAG splicing events from: <http://genome.sdau.edu.cn/research/software/nagnag.html>.
11. ALTools: <http://sourceforge.net/projects/altools/files/?source=navbar>
12. KARORA: Java enabled Pathovariance system for Mass-spectrometry data.
13. AquaticPlantDB: First repository for Aquatic plants: <http://115.146.91.129/index.php>
14. isomiR2Function: <https://github.com/347033139/isomiR2Function>

Invited talks and Presentations:

1. 2014 – Invited by European Union COST action programme to deliver my finding on “Variations in stress-regulated smallRNA transcriptomics of Arabidopsis thaliana”, Sofia, Bulgaria.
2. 2012 – Invited to deliver a Keynote lecture on Plant and Pathogen Genomics: NGS and Cross talks at International Conference on Bioinformatics and System Biology, BIOCOMP, Varna, Bulgaria.
3. 2013 – Invited to deliver a lecture on Genome-wide landscape of alternative splicing events in Brachypodium distachyon at 1st International Brachypodium Conference, Modena, Italy.
4. 2012 – Invited to deliver a Keynote lecture on Plant and Pathogen Genomics: NGS and Cross-talk at CRIBI, University of Padova, Italy.
5. 2011 – Invited Keynote lecture on Alternative splicing, GC Biology and Evolution of Codon Biology in plant and viral genomes and their potential applications at Shenyang Agricultural University, Shenyang, China.
6. 2011 – Presented an oral presentation on Multivariate analysis revealed translational selection and mutational bias in Heterobasidion irregulare at XIII IUFRO Conference on Root and Butt Rot of Forest trees. Trento, Italy
7. 2011 – Presented an oral presentation on Comparative genomic analysis of rot fungi: insights into the evolution of specialized functions at XIII IUFRO Conference on Root and Butt Rot of Forest trees. Trento, Italy

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