KATHRIN M. SEIBT

Publications

PUBLISHED SOFTWARE

Seibt KM, Schmidt T & Heitkam T (2018) *FlexiDot: Highly customizable, ambiguity-aware dotplots for visual sequence analyses*. **Bioinformatics** 34:3575-3577

GitHub: https://github.com/molbio-dresden/flexidot

Mann L, **Seibt** KM, Weber B & Heitkam T (2022) *ECCsplorer: A pipeline to detect extrachromosomal circular DNA (eccDNA) from next-generation sequencing data.* **BMC Bioinformatics** 23:1-15

GitHub: https://github.com/crimBubble/ECCsplorer

RESEARCH PUBLICATIONS

Sultana N, Menzel G, **Seibt** KM, Garcia S, Weber B, Serçe S & Heitkam T (2022) *Genome-wide analysis of long terminal repeat retrotransposons from the cranberry* Vaccinium macrocarpon*.* **Journal of Berry Research** 12:165-185

Schmidt N, **Seibt** KM, Weber B, Schwarzacher T, Schmidt T & Heitkam T (2021) *Broken, silent, and in hiding: tamed endogenous pararetroviruses escape elimination from the genome of sugar beet (*Beta vulgaris*).* **Annals of Botany** 128:281-299

Reiche B, Kögler A, Morgenstern K, Brückner M, Weber B, Heikam T, **Seibt** KM, Tröber U, Meyer M, Wolf H, Schmidt T & Krabel D (2021): *Application of retrotransposon-based inter-SINE amplified polymorphism (ISAP) markers for the differentiation of common poplar genotypes*. **Canadian Journal of Forest Research** 51:1650-1663

Maiwald S, Weber B, **Seibt** KM, Schmidt T & Heitkam T (2021) *The Cassandra retrotransposon landscape in sugar beet (*Beta vulgaris*) and related Amaranthaceae: Recombination and re-shuffling lead to a high structural variability*. **Annals of Botany** 127:91-109

Seibt KM, Schmidt T & Heitkam T (2020) *The conserved 3' Angio-domain defines a superfamily of short interspersed nuclear elements (SINEs) in higher plants*. **Plant Journal** 101(3):681-699

Kögler A, **Seibt** KM, Heitkam T, Morgenstern K, Reiche B, Brückner M, Wolf H, Krabel D & Schmidt T (2020) *Divergence of 3' ends as a driver of short interspersed nuclear element (SINE) evolution in the Salicaceae*. **Plant Journal** 103:443-458

Diekmann K, **Seibt** KM, Muders K, Wenke T, Junghans H, Schmidt T & Dehmer KJ (2017) *Diversity studies in genetic resources of* Solanum *spp. (section* Petota*) by comparative application of ISAP markers*. **Genetic Resources and Crop Evolution** 64:1937-1953

Tomlekova N, Spasova-Apostolova V, Nacheva E, Stoyanova M, Teneva A, Petrov N, **Seibt** KM & Schmidt T (2017) *Genotyping of Bulgarian potato varieties by SINE-based ISAP markers*. **Comptes Rendus de l'Académie Bulgare des Sciences** 70:63-72

Seibt KM, Wenke T, Muders K, Truberg B & Schmidt T (2016) *Short interspersed nuclear elements (SINEs) are abundant in Solanaceae and have a family-specific impact on gene structure and genome organization*. **Plant Journal** 86:268-285

Schwichtenberg K, Wenke T, Zakrzewski F, **Seibt** KM, Minoche A, Dohm JC, Weisshaar B, Himmelbauer H & Schmidt T (2016) *Diversification, evolution and methylation of short interspersed nuclear element families in sugar beet and related Amaranthaceae species*. **Plant Journal** 85:229-244

Menzel G, Heitkam T, **Seibt** KM, Nouroz F, Müller-Stoermer M, Heslop-Harrison JS & Schmidt T (2014) *The diversification and activity of hAT transposons in Musa genomes*. **Chromosome Research** 22:559-571

Seibt KM, Wenke T, Wollrab C, Junghans H, Muders K, Dehmer KJ, Diekmann K & Schmidt T (2012) *Development and application of SINE-based markers for genotyping of potato varieties*. **Theoretical and Applied Genetics** 125:185-196

PUBLICATIONS IN PREPARATION

Hartig N, **Seibt** KM, Schmidt T & Heitkam T: *How to start a LINE: 5' switching rejuvenates LINE retrotransposons in tobacco and related* Nicotiana *species*.

BOOK CHAPTERS

Reiche B, Kögler A, Morgenstern K, Brückner M, Weber B, Heitkam T, **Seibt** KM, Tröber U, Meyer M, Wolf H, Schmidt T, & Krabel D (2020): "Anwendung des SINE-basierten Markersystems ISAP zur Identifizierung von Pappelklonen." Chapter in Thünen Report 76: Forstpflanzenzüchtung für die Praxis, M. Liesebach (ed.), pp 144-154

Wenke T, **Seibt** KM, Döbel T, Muders K & Schmidt T (2015) *Inter-SINE amplified polymorphism (ISAP) for rapid and robust plant genotyping*. In: Batley J (ed) Plant Genotyping: Methods and Protocols. Springer Science+Business Media, New York, pp 183-192

Seifert J, Erler B, **Seibt** K, Rohrbach N, Arnold J, Schlömann M, Kassahun A & Jenk U (2008) *Characterization of the microbial diversity in the abandoned uranium mine Königstein*. In: Merkel B & Hasche-Berger A (ed) Uranium, Mining and Hydrogeology. Springer, Berlin, pp 733-742

CONFERENCE TALKS

RepeatExplorer Meeting 2019 (workshop on the RepeatExplorer pipeline for repetitive DNA analyses; České Budějovice, Czech Republic) *"The Angio-SINE superfamily with a conserved 3' domain is widely distributed across the Angiosperms and frequently associated with genes"*

Biopolis 2018 (PhD conference; Dresden, Germany) *"The Angio-SINE superfamily with a conserved 3' domain is widely distributed across the Angiosperms"*

iJaDe 2016 (conference for German-Japanese cooperation; Dresden, Germany) *"Solanaceae short interspersed nuclear elements and their impact on gene structure and genome organization."*

CONFERENCE POSTERS (SINCE 2017)

Maiwald M, Weber B, **Seibt** KM, Schmidt T & Heitkam T (2020) *"The highly recombinated landscape of Cassandra retrotransposons in* Beta vulgaris*"* Biopolis (Dresden, Germany) [presented by first author]

Seibt KM, Schmidt T & Heitkam T (2019) *"FlexiDot: Customize your dotplots for visual sequence analyses"* Meeting of the GPZ group Cytogenetics (Dresden, Germany)

Seibt KM, Schmidt T & Heitkam T (2019) *"The conserved 3' Angio-domain defines a novel superfamily of short interspersed nuclear elements (SINEs) in higher plants"* Meeting of the GPZ group Cytogenetics (Dresden, Germany)

Schmidt N, Weber B, **Seibt** KM, Schwarzacher T, Schmidt T & Heitkam T (2019) *"Endogenous pararetroviruses in the genome of sugar beet (*Beta vulgaris*)"* Meeting of the GPZ group Cytogenetics (Dresden, Germany) [presented by first author]

Heitkam T, Weber B, **Seibt** KM, Hoffmann J, Badstübner M & Schmidt T (2019) *"Taking the retro-ride: Long terminal repeat retrotransposons carry tandem repeats and disperse them through plant genomes"* Meeting of the GPZ group Cytogenetics (Dresden, Germany) [presented by first author]

Seibt KM, Heitkam T & Schmidt T (2019) *"The conserved 3' Angio-domain defines a novel superfamily of SINEs in higher plants"* Crossroads between transposons and gene regulation (London, United Kingdom)

Seibt KM, Schmidt T & Heitkam T (2019) *"FlexiDot: Customize your dotplots for visual sequence analyses"* Biopolis (Dresden, Germany)

Seibt KM, Heitkam T & Schmidt T (2018) *"The Angio-SINE superfamily with its conserved 3' domain is widely distributed across the Angiosperms"* Transposable elements meeting (Cold Spring Harbor, USA)

Seibt KM, Schmidt T & Heitkam T (2018) *"SINEs contribute to gene evolution, regulation and genome rearrangement in Solanaceae plants"* EMBO Workshop plant genome stability and change (IPK Gatersleben, Germany)

Hübler N, **Seibt** KM, Schmidt T & Heitkam T (2018) *"The impact of allopolyploidization on retrotransposable elements in Nicotiana",* Plant Science Student Conference (IPK Gatersleben, Germany) [presented by first author]

Seibt KM, Wenke T, Muders K, Truberg B & Schmidt T (2017) *"SINEs in Solanaceae – gene association and use as molecular markers"* EMBL symposium: The mobile genome: Genetic and physiological impacts of transposable elements (Heidelberg, Germany)

Weber B, **Seibt** KM, Hoffmann J, Ha HB, Bannack E & Schmidt T, Heitkam T (2017) *"Where it starts and how it ends – the evolution of tandem repeats within LTR retrotransposons"* EMBL symposium: The mobile genome: Genetic and physiological impacts of transposable elements (Heidelberg, Germany) [presented by first author]

Seibt KM, Wenke T, Muders K, Truberg B, Heitkam T & Schmidt T (2017) *"SINEs in Solanaceae – chromosomal localization, gene association and utilization as molecular markers"* XIX international botanical congress (Shenzhen, China)

Seibt KM, Wenke T, Muders K, Truberg B & Schmidt T (2017) *"SINEs in Solanaceae – genome organization, evolution and application as molecular markers"* Biopolis (Dresden, Germany)