

Georg-August-Universität Göttingen
Department für Nutzpflanzenwissenschaften
Abt. Qualität und Sensorik pflanzlicher Erzeugnisse

Verzeichnis der Veröffentlichungen
(List of publications)

2010 – 2025

2025

CF Wessler, M Weiland, S Einfeldt, M Wiesner-Reinhold, M Schreiner, **S Neugart**, The effect of supplemental LED lighting in the range of UV, blue, and red wavelengths at different ratios on the accumulation of phenolic compounds in pak choi and swiss chard, Food Research International 200 (2025): 1-13, <https://doi.org/10.1016/j.foodres.2024.115438>

Y Demir, DN Dikmetas, EG Acar, **S Neugart**, T Esatbeyoglu, F Karbancioglu-Guler, D Kahveci, Enzyme and ultrasound pretreatments to improve extraction of carotenoids from industrial carrot waste, ACS Agricultural Science & Technology (2025) accepted, <https://doi.org/10.1021/acsagscitech.5c00327>

MA Abdalla, K Wagas, **S Neugart**, KH Mühling, Flavonol glycosides enrichment under combined selenium and sulfur supply of faba bean, Metabolomics (2025), accepted

O Szczepaniak, **S Neugart**, M Przeor, T Esatbeyoglu, Allium ursinum as a Centuries-old Medicinal Plant-Short Review of Anti-inflammatory and Antimicrobial Properties of the Rare Garlic Species, (Planta Med 2025), Online ahead of print, <https://doi.org/10.1055/a-2633-55811>

H Liu, T Pöhl, Z Ji, S Neugart, Short-term postharvest UV-A and UV-B application enhances bioactive plant secondary metabolites in leafy vegetables, Postharvest Biology and Technology 229 (2025), <https://doi.org/10.1016/j.postharvbio.2025.113679>

NS Rabitti, P Sandvik, **S Neugart**, JJ Schouteten, M Laureati, Green color drives rejection of crackers added with algae in children but not in adults, Food Quality and Preference 127 (2025), <https://doi.org/10.1016/j.foodqual.2025.105461>

2024

W Liu, A Havlikova, G Giuriani, D Li, DJ Lamont, **S Neugart**, CN Velanis, J Petersen, JM Christie, GI Jenkins, Phosphorylation of UVR8 photoreceptor modulates plant responses to UV light, Nature Communications 15 (2024), 1221. <https://doi.org/10.1038/s41467-024-45575-7>

J Mörlein, S Wessel, **S Neugart, T Pöhl**, 2024, Masking of bitter sesquiterpene lactones in lettuce (*Lactuca sativa* L.) by apple juice (*Malus domestica* Borkh.) in green smoothies., NFS J.,36, 100190, <https://doi.org/10.1016/j.nfs.2024.100190>

LBS Nascimento, A Gorla, L Cavigli, G Marino, C Brunetti, M Haworth, F Micheletti, **T Pöhl, S Neugart**, G Agati, UVB treatments of packaged ready-to-eat salads: Induced enhancement of quercetin derivatives in baby-leaf lettuce (*Lactuca sativa* L.) and wild rocket (*Diplotaxis tenuifolia* L.).

Postharvest Biology and Technology 207 (2024), 112606.

<https://doi.org/10.1016/j.postharvbio.2023.112606>

S Neugart, V Steininger, C Fernandes, J Martínez-Abaigar, E Núñez-Olivera, M Schreiner, Å Strid, A Viczián, A Albert, F.R. Badenes-Pérez, A Castagna, B Dáder, A Fereres, A Gaberscik, Á Gulyás, D Gwynn-Jones, F Nagy, A Jones, R Julkunen-Tiitto, N Konstantinova, K Lakkala, L Llorens, J Martínez-Lüscher, L Nybakken, J Olsen, I Pascual, A Ranieri, N Regier, M Robson, E Rosenqvist, M Santin, M Turunen, F Vandenbussche, D Verdaguer, B Winkler, K Witzel, D Grifoni, G Zipoli, Éva Hideg, M.A.K. Jansen, MT Hauser, A synchronized, large-scale field experiment using *Arabidopsis thaliana* reveals the significance of the UV-B photoreceptor UVR8 under natural conditions, *Plant, Cell & Environment* (2024), 1–17. <https://doi.org/10.1111/pce.15008>

TM Osaili, A Swaidan, A Al-Nabulsi, A Olaimat, **S Neugart**, **L Engelhardt**, T Esatbeyoglu, M Ayyash, LC Ismail, MM Al-Dabbas, RS Obaid, N El Darra, Assessment of the Phenolic Profile and Biological Activities of Aqueous Date Seed Extracts: A Comparative Analysis, *Applied Food Research* 4 (2024), 100493. <https://doi.org/10.1016/j.afres.2024.100493>

D Plamada, M Arlt, D Gueterbock, R Sevenich, C Kanzler, **S Neugart**, DC Vodnar, H Kieserling, S Rohn, Impact of Thermal, High-Pressure, and Pulsed Electric Field Treatments on the Stability and Antioxidant Activity of Phenolic-Rich Apple Pomace Extracts, *Molecules* (2024), 29(24), 5849; <https://doi.org/10.3390/molecules29245849>

NS Rabitti, S Bayudan, M Laureati, **S Neugart**, JJ Schouteten, L Aelman, S Dahlstedt, P Sandvik, Snacks from the sea: a cross national comparison of consumer acceptance for crackers added with algae, *European Food Research and Technology* 250 (2024), 2193–2209. <https://doi.org/10.1007/s00217-024-04530-y>

S Rogge, **S Neugart**, M Schreiner, R Meyhoefer, Phenolic Compounds in Different Stages of Ontogenesis in *Chrysanthemum*—A Potential for Thrips-Resistance Characterisation, *Horticulturae* 10 (2024), 822. <https://doi.org/10.3390/horticulturae10080822>

H Tannir, E Debs, G Mansour, **S Neugart**, R El Hage, M.I. Khalil, N El Darra, N Louka, Microbial Decontamination of *Cuminum cyminum* Seeds Using “Intensification of Vaporization by Decompression to the Vacuum”: Effect on Color Parameters and Essential Oil Profile, *Foods* 13 (2024), 2264. <https://doi.org/10.3390/foods13142264>

CF Wessler, M Weiland, S Einfeldt, M Wiesner-Reinhold, M Schreiner, **S Neugart**, The effect of supplemental LED lighting in the range of UV, blue, and red wavelengths at different ratios on the accumulation of phenolic compounds in pak choi and swiss chard, *Food Research International* 200: 1–3, <https://doi.org/10.1016/j.foodres.2024.115438>

2023

F Sonntag, **H Liu**, **S Neugart**, Nutritional and physiological effects of postharvest UV radiation on vegetables: A review, *Journal of Agricultural and Food Chemistry* 71 (2023), 9951–9972; <https://doi.org/10.1021/acs.jafc.3c00481>

M Weiland, CF Weßler, T Filler, J Glaab, N Lobo Ploch, U Winterwerber, M Wiesner-Reinhold, M Schreiner, **S Neugart**, A comparison of consistent UV treatment versus inconsistent UV treatment in

horticultural production of lettuce, *Photochemical and Photobiological Sciences* 22 (2023), 1611-1624; <https://doi.org/10.1007/s43630-023-00402-8>

N Rai, **S Neugart**, D Schröter, AV Lindfors, PJ Aphalo, Responses of flavonoids to solar UV radiation and gradual soil drying in two *Medicago truncatula* accessions, *Photochemical and Photobiological Sciences* 22 (2023), 1637-1654; <https://doi.org/10.1007/s43630-023-00404-6>

N Laurenčíková, M Živčák, **S Neugart**, **T Pöhl**, Influence of UV radiation-absorbing foils on secondary plant metabolites in three lettuce cultivars (*Lactuca sativa* L. and *Cichorium intybus* L.). *Frontiers in Food Science and Technology* 3 (2023), 1208100. <https://doi.org/10.1016/j.postharvbio.2023.112606>

H Pöhl, **T Pöhl**, Applications of different curing approaches and natural colorants in meat products. In: *Handbook on Natural Pigments in Food and Beverages – Industrial Applications for Improving Food Color* (2nd Edition). (Eds. Carle, R., Schweiggert, R.M.), Elsevier, 295-315 (2023). (ISBN: 978-0-323-99609-9 (online))

L Engelhardt, **T Pöhl**, M Alhussein, M John, **S Neugart**, Changes in bioactive compounds and antioxidant activity of three *Amaranthus* L. genotypes from a model to household processing. *Food Chemistry* 429 (2023), 136891 <https://doi.org/10.1016/j.foodchem.2023.136891>

J Warner, **T Pöhl**, CB Steingass, D Bogarín, R Carle, VM Jiménez, Pectins, hemicellulose and lignocellulose profiles vary in leaves among different aromatic *Vanilla* species (Orchidaceae). *Carbohydrate Polymer Technologies and Applications* 5 (2023), 100289. <https://doi.org/10.1016/j.carpta.2023.100289>

2022

A Brugger, FI Yamati, A Barreto, S Paulus, P Schramowski, K Kersting, U Steiner, **S Neugart**, AK Mahlein, Hyperspectral imaging in the UV-range allows for differentiation of sugar beet diseases based on changes of secondary plant metabolites, *Phytopathology* 113 (2022), 44-54; <https://doi.org/10.1094/phyto-03-22-0086-r>

HR Nadeem, S Akhtar, P Sestili, T Ismail, **S Neugart**, M Qamar, T Esatbeyoglu, Toxicity, Antioxidant activity, and phytochemicals of basil (*Ocimum basilicum* L.) leaves cultivated in Southern Punjab, Pakistan, *Foods* 11 (2022), 1-13; <https://doi.org/10.3390/foods11091239>

L Engelhardt, **T Pöhl**, **S Neugart**, Edible Wild Vegetables *Urtica dioica* L. and *Aegopodium podagraria* L.–Antioxidants Affected by Processing. *Plants* 11 (2022), 2710. <https://doi.org/10.3390/plants11202710>

M Bayer, **S Neugart**, **T Pöhl**, Influence of urban gardening conditions on the concentration of antioxidant secondary plant metabolites in kale. *Journal of Applied Botany and Food Quality* 2022, 95, 85 – 93. <https://ojs.openagrar.de/index.php/JABFQ/article/view/16427>

2021

S Neugart, MA Tobler, PW Barnes, The Function of Flavonoids in the Diurnal Rhythm under Rapidly Changing UV Conditions—A Model Study on Okra, *Plants* 10 (2021), 2268.

<https://doi.org/10.3390/plants10112268>

L Engelhardt, T Pöhl, S Neugart. Interactions of Ascorbic Acid, 5-Caffeoylquinic Acid, and Quercetin-3-Rutinoside in the Presence and Absence of Iron during Thermal Processing and the Influence on Antioxidant Activity. *Molecules* 2021, 26, 7698. <https://doi.org/10.3390/molecules26247698>

S Neugart, MA Tobler, PW Barnes, Rapid adjustment in epidermal UV sunscreen: Comparison of optical measurement techniques and response to changing solar UV radiation conditions, *Physiologia Plantarum* (2021), 1–11. <https://doi.org/10.1111/ppl.13517>

M Wiesner-Reinhold, JV Dutra Gomes, C Herz, HTT Tran, S Baldermann, **S Neugart**, T Filler, J Glaab, S Einfeldt, M Schreiner, E Lamy, Subsequent treatment of leafy vegetables with low doses of UVB-radiation does not provoke cytotoxicity, genotoxicity, or oxidative stress in a human liver cell model, *Food Bioscience* 43 (2021), 101327. <https://doi.org/10.1016/j.fbio.2021.101327>

S Groth, C Budke, T Weber, **S Neugart**, S Brockmann, M Holz, BC Sawadski, D Daum, S Rohn Relationship between Phenolic Compounds, Antioxidant Properties, and the Allergenic Protein Mal d 1 in Different Selenium-Biofortified Apple Cultivars (*Malus domestica*), *Molecules* 26 (2021) , 2647 <https://doi.org/10.3390/molecules26092647>

M Darmanin, A Fröhling, S Bußler, J Durek, **S Neugart**, M Schreiner, R Blundell, R Gatt, O Schlüter, VP Valdramidis, Plasma applications for the treatment of bean sprouts: safety, quality and nutritional assessments under aqueous and gaseous set-ups, *Sci Rep* 11, 19681 (2021), <https://doi.org/10.1038/s41598-021-97823-1>

Pöhl, Minor, Sedlmeier, Schweiggert, Carle, Influence of propagation method and storage conditions on fructo-oligosaccharide degradation in onions (*Allium cepa* L.), *Journal of Food Composition and Analysis* 103 (2021), 104102 <https://doi.org/10.1016/j.jfca.2021.104102>

S Neugart, C Bumke-Vogt, Flavonoid glycosides in Brassica species respond to UV-B dependent on exposure time and adaptation time, *Molecules* 26 (2021), 494 <https://doi.org/10.3390/molecules26020494>

S Neugart, P Majer, M Schreiner, É Hideg, Blue light treatment, but not green light treatment after pre-exposure to UV-B stabilizes flavonoid glycoside changes and corresponding biological effects in three different Brassicaceae sprouts, *Frontiers in Plant Science* 11 (2021), 611247 <https://doi.org/10.3389/fpls.2020.611247>

2020

O Sytar, M Zivcak, **S Neugart**, M Brestic, Assessment of hyperspectral indicators related to the content of phenolic compounds and multispectral fluorescence records in chicory leaves exposed to various light environments, *Plant Physiology and Biochemistry* 154 (2020), 429-438 <https://doi.org/10.1016/j.plaphy.2020.06.027>

I Weindl, M Ost, P Wiedmer, M Schreiner, **S Neugart**, R K, H K, W Kloas, IM Henkel, O Schlüter, S Bußler, SD Bellingrath-Kimura, H Maj, T Grune, S Rolinska, S Klaus, Sustainable food protein supply

reconciling human and ecosystem health: A Leibniz Position, *Global Food Security* 25 (2020), 1003675
<https://doi.org/10.1016/j.gfs.2020.100367>

L Llorens, **S Neugart**, F Vandenbussche, A Castagna, Editorial: Ultraviolet radiation: friend or foe for plants?, *Frontiers in Plant Science* 11 (2020), 541 doi: [10.3389/fpls.2020.00541](https://doi.org/10.3389/fpls.2020.00541)

S Neugart, É Hideg, G Czégény, M Schreiner, Å Strid, Ultraviolet-B radiation exposure lowers the antioxidant capacity in the *Arabidopsis thaliana* pdx1.3-1 mutant and leads to glucosinolate biosynthesis alteration in both wild type and mutant, *Photochemical & Photobiological Sciences* 19 (2020), 217-228 <https://doi.org/10.1039/C9PP00342H>

S Groth, C Budke, **S Neugart**, S Ackermann, FS Kappenstein, D Daum, S Rohn, Influence of a selenium biofortification on antioxidant properties and phenolic compounds of apples (*Malus domestica*), *Antioxidants* 9 (2020), 187 <https://doi.org/10.3390/antiox9020187>

Y Yan, FL Stoddard, **S Neugart**, M Oravec, O Urban, VO Sadras, PJ Aphalo, The transgenerational effects of solar short-UV radiation differed in two accessions of *Vicia faba* L. from contrasting UV environments, *Journal of Plant Physiology* 28 (2020), 153145
<https://doi.org/10.1016/j.jplph.2020.153145>

2019

C Assumpção, R Assis, V Hermes, A Castagna, A Ranieri, **S Neugart**, S Flores, A Rios, Application of supplemental UV-B radiation in pre-harvest to enhance health-promoting compounds accumulation in green and red lettuce, *Journal of Food Processing and Preservation* 43 (2019), e14213
<https://doi.org/10.1111/jfpp.14213>

R Klopsch, S Baldermann, A Voss, S Rohn, M Schreiner, **S Neugart**, Narrow-banded UVB affects the stability of secondary plant metabolites in kale (*Brassica oleracea* var. *sabellica*) and pea (*Pisum sativum*) leaves being added to lentil flour fortified bread: A novel approach for producing Functional Foods, *Foods* 8 (2019), 4027 <https://doi.org/10.3390/foods8100427>

X Chen, FS Hanschen, **S Neugart**, M Schreiner, S Vargas, B Gutschmann, S Baldermann, Boiling and steaming induced changes in secondary metabolites in three different cultivars of pak choi (*Brassica rapa* subsp. *chinensis*), *Journal of Food Composition and Analysis* 82 (2019), 103232
<https://doi.org/10.1016/j.jfca.2019.06.004>

S Neugart, M Tobler, PW Barnes, Different irradiances of UV and PAR in the same ratios alter the flavonoid profiles of *Arabidopsis thaliana* wild-types and UV-signalling pathway mutants
Photochemical & Photobiological Sciences 18 (2019), 1685-1699
<https://doi.org/10.1039/C8PP00496J>

N Rai, **S Neugart**, Y Yan, F Wang, SM Siipola, A Lindfors, JB Winkler, A Albert, M Brosche, T Lehto, LO Morales, PJ Aphalo, How do cryptochromes and UVR8 interact in natural and simulated sunlight? *Journal of Experimental Botany* 70 (2019), 4975–4990 <https://doi.org/10.1093/jxb/erz236>

O Sytar, M Zivcak, **S Neugart**, PM Toutouchi M Brestic, Precultivation of young seedlings under different color shades modifies the accumulation of phenolic compounds in *Cichorium* leaves in later growth phases, *Environmental and Experimental Botany* 165 (2019), 30-38
<https://doi.org/10.1016/j.envexpbot.2019.05.018>

R Klopsch, S Baldermann, FS Hanschen, A Voss, S Rohn, M Schreiner, **S Neugart**, Brassica-enriched wheat bread: Unraveling the impact of ontogeny and breadmaking on bioactive secondary plant metabolites of pak choi and kale, *Food Chemistry* 295 (2019), 412-422
<https://doi.org/10.1016/j.foodchem.2019.05.113>

M Groenbaek, E Tybirk, **S Neugart**, U Kraemer Sundekilde, M Schreiner, H Lakkenborg Kristensen, Flavonoid glycosides and hydroxycinnamic acid derivatives in baby leaf rapeseed from white and yellow flowering cultivars with repeated harvest in a 2-years field study, *Frontiers in Plant Science* 10 (2019), 355 <https://doi.org/10.3389/fpls.2019.00355>

D Schröter, **S Neugart**, M Schreiner, T Grune, S Rohn, C Ott, Amaranth's 2-caffeoylisocitric acid—An anti-inflammatory caffeic acid derivative that impairs NF- κ B signaling in LPS-challenged RAW 264.7 macrophages, *Nutrients* (2019), 11, 571 <https://doi.org/10.3390/nu11030571>

TM Robson, PJ Aphalo, AK Banas, PW Barnes, CC Brelsford, GI Jenkins, T Kotilainen, J Labuz, J Martínez-Abaigar, LO Morales, **S Neugart**, M Pieristè, N Rai, F Vandenbussche, MAK Jansen, A perspective on ecologically relevant plant-UV research and its practical application, *Photochemical & Photobiological Sciences* 18 (2019), 970-988 <https://doi.org/10.1039/C8PP00526E>

Y Yan, FL Stoddard, **S Neugart**, VO Sadras, A Lindfors, LO Morales, PJ Aphalo, Responses of flavonoid profile and associated gene expression to solar blue and UV radiation in two accessions of *Vicia faba* L. from contrasting UV environments, *Photochemical & Photobiological Sciences* 18 (2019), 434-447
<https://doi.org/10.1039/C8PP00567B>

T Rodríguez-Calzada, M Qian, Å Strid, **S Neugart**, M Schreiner, I Torres-Pacheco, RG Guevara-González, Effect of UV-B radiation on morphology, phenolic compound production, gene expression, and subsequent drought stress responses in chili pepper (*Capsicum annuum* L.), *Plant Physiology and Biochemistry* 134 (2019), 94-102 <https://doi.org/10.1016/j.plaphy.2018.06.025>

T. Pöhl, N. Minor, R.M. Schweiggert, R. Carle, Accumulation of carbohydrates and pungent principles in characteristic seed and set grown onion varieties (*Allium cepa* L.), *Journal of Applied Botany and Food Quality* 92 (2019), 267 – 273 <https://doi.org/10.5073/JABFQ.2019.092.037>

B. Büssing, F. Hägele, A. Nas, L.-V. Döbert, A. Fricker, E. Dörner, E. Podlesny, J. Aschoff, **T. Pöhl**, R. Schweiggert, W.F. Fricke, R. Carle, A. Bosy-Westphal, High intake of orange juice and cola differently affects metabolic risk in healthy subjects, *Clinical Nutrition* 38 (2019), 812-819
<https://doi.org/10.1016/j.clnu.2018.02.028>

2018

PW Barnes, MAK Jansen, GI Jenkins, F Vandenbussche, CC Brelsford, AK Banaś, W Bilger, A Castagna, D Festi, A Gaberšček, M Germ, A Golob, L Llorens, MT Hauser, J Martínez-Abaigar, LO Morales, **S Neugart**, M Pieristè, N Rai, L Ryan, M Santin, A WR Seddon, J Stelzner, E Tavridou, J Łabuz, TM Robson, The importance and direction of current and future plant-UV research, *UV4Plants Bulletin* 2018 (2), 19-32 <https://doi.org/10.19232/uv4pb.2018.2.11>

M Santin, **S Neugart**, A Castagna, M Barilari, S Sarrocco, G Vannacci, M Schreiner, A Ranieri, UV-B pre-treatment alters phenolics response to *Monilinia fructicola* infection

in a structure-dependent way in peach skin, *Frontiers in Plant Science* 9 (2018), 1598
<https://doi.org/10.3389/fpls.2018.01598>

N Schlotz, G Odongo, C Herz, H Waßmer, C Kühn, FS Hanschen, **S Neugart**, N Binder, B Ngwene, M Schreiner, S Rohn, E Lamy, Are raw *Brassica* vegetables healthier than cooked ones? A randomized, controlled crossover cancer prevention intervention trial with Ethiopian kale, *Nutrients* 10 (2018), 1622 <https://doi.org/10.3390/nu10111622>

G Odongo, N Schlotz, S Baldermann, **S Neugart**, B Ngwene, S Schreiner, E Lamy, Effects of *Amaranthus cruentus* L on aflatoxin B1- and oxidative stress induced DNA damage in human liver (HepG2) cells. *Food Bioscience* 26 (2018), 42-48 <https://doi.org/10.1016/j.fbio.2018.09.006>

R Klopsch, S Baldermann, A Voss, S Rohn, M Schreiner, **S Neugart**, Bread enriched with legume microgreens and leaves - Ontogenetic and baking-driven changes in the profile of secondary plant metabolites. *Frontiers in Chemistry* 6 (2018), 322 <https://doi.org/10.3389/fchem.2018.00322>

S Baldermann, T Homann, **S Neugart**, FM Chmielewski, KP Götz, K Gödeke, G Huschek, GE Morlock, HM Rawel, Selected plant metabolites involved in oxidation-reduction processes during bud dormancy and ontogenetic development in sweet cherry buds (*Prunus avium* L.), *Molecules* 23 (2018), 1197 <https://doi.org/10.3390/molecules23051197>

S Neugart, S Baldermann, FS Hanschen, R Klopsch, M Wiesner-Reinhold, M Schreiner, The intrinsic quality of brassicaceous vegetables: How secondary plant metabolites are affected by genetic, environmental, and agronomic factors, *Scientia Horticulturae* 233 (2018), 460-478
<https://doi.org/10.1016/j.scienta.2017.12.038>

S Neugart, M Wiesner-Reinhold, K Frede, E Jander, T Homann, H Rawel, M Schreiner, S Baldermann, Effect of solid biological waste compost on the metabolite profile of *Brassica rapa* ssp. *chinensis*, *Frontiers in Plant Science* 9 (2018), 305 <https://doi.org/10.3389/fpls.2018.00305>

M Heinze, FS Hanschen, M Wiesner-Reinhold, S Baldermann, J Gräfe, M Schreiner, **S Neugart**, Effect of developmental stage and reduced UVB and low UV conditions on secondary plant metabolite profiles in pak choi (*Brassica rapa* ssp. *chinensis*), *Journal of Agricultural and Food Chemistry* 66 (2018), 1678-1692 <https://doi.org/10.1021/acs.jafc.7b03996>

S Neugart, M Schreiner, UVB and UVA as eustressors in horticultural and agricultural crops, *Scientia Horticulturae* 234 (2018), 370-381 <https://doi.org/10.1016/j.scienta.2018.02.021>

D Schröter, S Baldermann, M Schreiner, K Witzel, R Maul, S Rohn, **S Neugart**, Natural diversity of hydroxycinnamic acid derivatives, flavonoid glycosides, carotenoids and chlorophylls in leaves of six different amaranth species, *Food Chemistry* 267 (2018), 376-386
<https://doi.org/10.1016/j.foodchem.2017.11.043>

M Vollmer, S Esders, FM Farquharson, **S Neugart**, SH Duncan, M Schreiner, P Louis, R Maul, S Rohn, Mutual interaction of phenolic compounds and microbiota: Metabolism of complex phenolic apigenin-C- and kaempferol-O-derivatives by human fecal samples, *Journal of Agricultural and Food Chemistry* 66 (2018), 485-497 <https://doi.org/10.1021/acs.jafc.7b04842>

T. Pöhl, R.M. Schweiggert, R. Carle, Impact of cultivation method and cultivar selection on soluble carbohydrates and pungent principles in onions (*Allium cepa* L.), *Journal of Agricultural and Food Chemistry* 66 (2018), 12827-12825 <https://doi.org/10.1021/acs.jafc.8b05018>

2017

O Rechner, **S Neugart**, M Schreiner, S Wu, HM Poehling, Can narrow-bandwidth light from UV-A to green alter secondary plant metabolism and increase *Brassica* plant defenses against aphids?, PLOS ONE 12 (2017), e0188522 <https://doi.org/10.1371/journal.pone.0188522>

B Ngwene, **S Neugart**, S Baldermann, B Ravi, M Schreiner, Intercropping induces changes in specific secondary metabolite concentration in Ethiopian kale (*Brassica carinata*) and African nightshade (*Solanum scabrum*) under controlled conditions, Frontiers in Plant Science (2017), 1700 <https://doi.org/10.3389/fpls.2017.01700>

A Castagna, K Csepregi, **S Neugart**, G Zipoli, K Večeřová, G Jakab, J Jug, L Llorens, J Martínez-Abaigar, J Martínez-Lüscher, E Núñez-Olivera, A Ranieri, K Schoedl-Hummel, M Schreiner, P Teszlák, S Tittmann, O Urban, D Verdaguer, MAK Jansen, É Hideg, Environmental plasticity of Pinot noir grapevine leaves: A trans-European study of morphological and biochemical changes along a 1,500-km latitudinal climatic gradient, Plant, Cell and Environment 40 (2017), 2790-2805 <https://doi.org/10.1111/pce.13054>

S Neugart Analysis of phenolic compounds: which factors to consider?, UV4Plants Bulletin1 (2017), 31-61 <https://doi.org/10.19232/uv4pb.2017.1.13>

K Witzel, N Strehmel, S Baldermann, **S Neugart**, Y Becker, M Becker, B Berger, D Scheel, R Grosch, M Schreiner, S Ruppel, *Arabidopsis thaliana* root and root exudate metabolism is altered by the growth-promoting bacterium *Kosakonia radicincitans* DSM 16656T, Plant and Soil 419 (2017), 557-573 <https://doi.org/10.1007/s11104-017-3371-1>

EO. Omondi, C Engels, G Nambafu, M Schreiner, **S Neugart**, M Abukutsa-Onyango, T Winkelmann, Nutritional compound analysis and morphological characterization of spider plant (*Cleome gynandra*) - an African indigenous leafy vegetable, Food Research International 100 (2017), 284-295 <https://doi.org/10.1016/j.foodres.2017.06.050>

M Vollmer, D Schröter, S Esders, **S Neugart**, FM Farquharson, SH Duncan, M Schreiner, P Louis, R Maul, S Rohn, Chlorogenic acid versus amaranth's caffeoylisocitric acid – gut microbial degradation of caffeic acid derivatives, Food Research International 100 (2017), 375-384 <https://doi.org/10.1016/j.foodres.2017.06.013>

S Neugart, S Baldermann, B Ngwene, J Wesonga, M Schreiner, Indigenous leafy vegetables of Eastern Africa - a source of extraordinary secondary plant metabolites, Food Research International 100 (2017), 411-422 <https://doi.org/10.1016/j.foodres.2017.02.014>

GA Odongo, N Schlotz, C Herz, FS Hanschen, S Baldermann, **S Neugart**, B Trierweiler, L Frommherz, CMAP Franz, B Ngwene, AW Luvonga, M Schreiner, S Rohn, E Lamy, The role of plant processing for human the cancer prevention preventive potential by of Ethiopian kale (*Brassica carinata*), Food & Nutrition Research 61 (2017), 1-11 <http://dx.doi.org/10.1080/16546628.2017.1271527>

V Mageney, **S Neugart**, DC Albach, A guide to the variability of flavonoids in *Brassica oleracea*, Molecules 22 (2017), 252 <https://doi.org/10.3390/molecules22020252>

D Verdaguer, MAK Jansen, L Llorens, LO Morales, **S Neugart**, UV-A radiation effects on higher plants: Exploring the known unknown, *Plant Science* 255 (2017), 72–81
<https://doi.org/10.1016/j.plantsci.2016.11.014>

T. Pöhl, C. Böttcher, H. Schulz, M. Stürtz, S. Widder, R. Carle, R.M. Schweiggert, Comparison of high performance anion exchange chromatography with pulsed amperometric detection (HPAEC-PAD) and ultra-high performance liquid chromatography with evaporative light scattering (UHPLC-ELSD) for the analyses of fructooligosaccharides in onion (*Allium cepa* L.), *Journal of Food Composition and Analysis* 63 (2017), 148-156 <https://doi.org/10.1016/j.jfca.2017.08.001>

2016

MÁ Del-Castillo-Alonso, A Castagna, K Csepregi, É Hideg, G Jakab, MAK Jansen, T Jug, L Llorens, A Matai, J Martínez-Lüscher, L Monforte, **S Neugart**, J Olejnickova, A Ranieri, K Schödl-Hummel, M Schreiner, G Soriano, P Teszlak, S Tittmann, O Urban, D Verdaguer, G Zipoli, J Martínez-Abaigar, E Nunez-Olivera, Environmental factors correlated with the metabolite profile of *Vitis vinifera* cv. Pinot noir berry skins along a European latitudinal gradient, *Journal of Agricultural and Food Chemistry* 64 (2016), 8722–8734 <https://doi.org/10.1021/acs.jafc.6b03272>

O Rechner, **S Neugart**, M Schreiner, S Wu, HM Poehling, Different narrow-band light ranges alter plant secondary metabolism and plant defense response to aphids. *Journal of Chemical Ecology* 42 (2016), 989-1003 <https://doi.org/10.1007/s10886-016-0755-2>

J Acharya, O Rechner, **S Neugart**, M Schreiner, HM Poehling, Effects of light-emitting diode treatments on *Brevicoryne brassicae* performance mediated by secondary metabolites in Brussels sprouts, *Journal of Plant Disease and Protection* 123 (2016), 321-330
<https://doi.org/10.1007/s41348-016-0029-9>

S Baldermann, L Blagojević, K Frede, R Klopsch, **S Neugart**, A Neumann, B Ngwene, J Norkoweit, D Schröter, A Schröter, F Schweigert, M Wiesner, M Schreiner, Are neglected plants the food for the future?. *Critical Reviews in Plant Science* 35 (2016), 106-119
<https://doi.org/10.1080/07352689.2016.1201399>

S Neugart, A Krumbein, R Zrenner, Influence of photosynthetic active radiation and temperature on gene expression leading to accumulation of structurally different flavonol glycosides and hydroxycinnamic acid derivatives in kale (*Brassica oleracea* var. *sabellica*). *Frontiers in Plant Science* 7 (2016), Article 326 <https://doi.org/10.3389/fpls.2016.00326>

K Csepregi, **S Neugart**, M Schreiner, É Hideg, Comparative evaluation of total antioxidant capacities of plant polyphenols. *Molecules* 21 (2016), 208 <https://doi.org/10.3390/molecules21020208>

M Groenbaek, S Jensen, **S Neugart**, M. Schreiner, U Kidmose, HL Kristensen, Nitrogen split dose fertilization, plant age and frost effects on phytochemical content and sensory properties of curly kale (*Brassica oleracea* var. *sabellica*). *Food Chemistry* 197 (2016), 530-538
<https://doi.org/10.1016/j.foodchem.2015.10.108>

2015

J Zehring, V Reim, D Schröter, **S Neugart**, M Schreiner, S Rohn, R Maul, Identification of novel saponins in vegetable amaranth and characterization of their hemolytic activity. Food Research International 78 (2015), 361-368 <https://doi.org/10.1016/j.foodres.2015.09.010>

K Witzel, **S Neugart**, S Ruppel, M Schreiner, M Wiesner, S Baldermann, Recent progress in the use of 'omics technologies in brassicaceous vegetables. Frontiers in Plant Science 6 (2015), 244 <https://doi.org/10.3389/fpls.2015.00244>

S Neugart, S Rohn, M Schreiner, Identification of complex, naturally occurring flavonoid glycosides in *Vicia faba* and *Pisum sativum* leaves by HPLC-DAD-ESI-MSn and the genotypic effect on their flavonoid profile. Food Research International 76 (2015), 114-121 <https://doi.org/10.1016/j.foodres.2015.02.021>

S Bußler, WB Herppich, **S Neugart**, M Schreiner, J Ehlbeck, S Rohn, O Schlüter, Impact of cold atmospheric pressure plasma on physiology and flavonol glycoside profile of peas (*Pisum sativum* 'Salamanca'). Food Research International 76 (2015), 132-141 <https://doi.org/10.1016/j.foodres.2015.03.045>

R Julkunen-Tiitto, N Nenadis, **S Neugart**, TM Robson, G Agati, J Vepsäläinen, G Zipoli, L Nybakken, B Winkler, MAK Jansen, Assessing the response of plant flavonoids to UV radiation-an overview of appropriate techniques. Phytochemistry Reviews 14 (2015), 273-297 <https://doi.org/10.1007/s11101-014-9362-4>

2014

M Groenbaek, S Jensen, **S Neugart**, M Schreiner, U Kidmose, H Lakkenborg Kristensen, Influence of cultivar and fertilizer approach on curly kale (*Brassica oleracea* var. *sabellica*). I. Genetic diversity reflected in agronomic characteristics and phytochemical concentration. Journal of Agricultural and Food Chemistry 62 (2014), 393-402 <https://doi.org/10.1021/jf503096p>

C Scattino, A Castagna, **S Neugart**, HM Chan, M Schreiner, CH Crisosto, P Tonutti, A Ranieri, Post-harvest UV-B irradiation induces changes of phenol contents and corresponding biosynthetic gene expression in peaches and nectarines. Food Chemistry 163 (2014), 51-60 <https://doi.org/10.1016/j.foodchem.2014.04.077>

S Neugart, M Fiol, M Schreiner, S Rohn, R Zrenner, LW Kroh, A Krumbein, Interaction of moderate UV-B exposure and temperature on the formation of structurally different flavonol glycosides and hydroxycinnamic acid derivatives in kale (*Brassica oleracea* var. *sabellica*). Journal of Agricultural and Food Chemistry 62 (2014), 4054-4062 <https://doi.org/10.1021/jf4054066>

P Majer, **S Neugart**, A Krumbein, S Schreiner, E Hideg, Singlet oxygen scavenging by leaf flavonoids contributes to sunlight acclimation in *Tilia platyphyllos*. Environmental and Experimental Botany 100 (2014), 1-9 <https://doi.org/10.1016/j.envexpbot.2013.12.001>

2013

AL McCarthy, YC O'Callaghan, **S Neugart**, CO Pigott, A Connolly, MAK. Jansen, A Krumbein, M Schreiner, RJ FitzGerald; NM O' Brien, The hydroxycinnamic acid content of barley and brewers' spent grain (BSG) and the potential to incorporate phenolic extracts of BSG as antioxidants into fruit beverages. Food Chemistry 141 (2013), 2567-2574 <https://doi.org/10.1016/j.foodchem.2013.05.048>

S Neugart, M Fiol, M Schreiner, S Rohn, R Zrenner, LW Kroh, A Krumbein, Low and moderate photosynthetically active radiation affects the flavonol glycosides and hydroxycinnamic acid derivatives in kale (*Brassica oleracea* var. *sabellica*) dependent on two low temperatures. Plant Physiology and Biochemistry 72 (2013), 161-168 <https://doi.org/10.1016/j.plaphy.2013.04.002>

M Fiol, A Weckmüller, **S Neugart**, S Rohn, M Schreiner, A Krumbein, LW Kroh, Thermal-induced changes of kale's antioxidant activity analyzed by HPLC–UV/Vis-online-TEAC detection. Food Chemistry 138 (2013), 857-865 <https://doi.org/10.1016/j.foodchem.2012.10.101>

2012

B Li, A Krumbein, **S Neugart**, L Li, M Schreiner, Mixed cropping with maize combined with moderate UV-B radiations lead to enhanced flavonoid production and root growth in faba bean. Journal of Plant Interactions 7 (2012), 333-340 <https://doi.org/10.1080/17429145.2012.714407>

M Fiol, S Adermann, **S Neugart**, S Rohn, M Schreiner, A Krumbein, LW Kroh, Highly glycosylated and acylated flavonols isolated from kale (*Brassica oleracea* var. *sabellica*)—Structure-activity relationship. Food Research International 47 (2012), 80-89 <https://doi.org/10.1016/j.foodres.2012.01.014>

S Neugart, HP Kläring, M Zietz, M Schreiner, S Rohn, LW Kroh, A Krumbein, Effect of temperature and radiation on flavonol aglycones and flavonol glycosides of kale (*Brassica oleracea* var. *sabellica*). Food Chemistry 133 (2012), 1456-1465 <https://doi.org/10.1016/j.foodchem.2012.02.034>

S Neugart, M Zietz, M Schreiner, S Rohn, LW Kroh, A Krumbein, Structurally different flavonol glycosides and hydroxycinnamic acid derivatives respond differently to moderate UV-B radiation exposure. Physiologia Plantarum 145 (2012), 582-593 <https://doi.org/10.1111/j.1399-3054.2012.01567.x>

2010

S Schmidt, M Zietz, M Schreiner, S Rohn, LW Kroh, A Krumbein, Identification of complex, naturally occurring flavonoid glycosides in kale (*Brassica oleracea* var. *sabellica*) by high-performance liquid chromatography diode array detection/electrospray ionization multi-stage mass spectrometry. Rapid Communications in Mass Spectrometry 24 (2010), 2009-2022 <https://doi.org/10.1002/rcm.4605>

M Zietz, A Weckmüller, **S Schmidt**, S Rohn, M Schreiner, A Krumbein, LW Kroh, Genotypic and climatic influence on the antioxidant activity of flavonoids in kale (*Brassica oleracea* var. *sabellica*). Journal of Agricultural and Food Chemistry 58 (2010), 2123-2130 <https://doi.org/10.1021/jf9033909>

S Schmidt, M Zietz, M Schreiner, S Rohn, LW Kroh, A Krumbein, Genotypic and climatic influences on the concentration and composition of flavonoids in kale (*Brassica oleracea* var. *sabellica*). Food Chemistry 119 (2010), 1293-1299 <https://doi.org/10.1016/j.foodchem.2009.09.004>