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**Vorwort:** Die hier aufgeführte erkrankungsspezifische Medizinstudienliste ist nur zur Prävention oder einer raschen Regeneration nach starken körperlichen Belastungen (Leistungs- und Breitensport) angegeben. Sie ist keine Anleitung oder Aufforderung zur Eigentherapie. Sollten Sie an einer Erkrankung leiden, ist dafür alleine der sie behandelnde Arzt oder Therapeut Ihrer Wahl zuständig!

Es gibt das Internetportal [Medizin-Transparent](http://www.medizin-transparent.at), das nach den Richtlinien der Evidenzbasierten Medizin (EbM) eine Bewertung von Medizinstudien vornimmt.

Die Bewertung dieser Studienliste durch Medizin-Transparent, können Sie hier einsehen: <https://www.medizin-transparent.at/bienen-krebs>

Auszug aus dieser Bewertung:

Hoffnung bisher nur im Reagenzglas

Bislang wurde nur an Versuchstieren und Krebszellen im Reagenzglas untersucht, ob Produkte von Bienen möglicherweise gegen Krebs wirken könnten. **Einige dieser Experimente liefern Hinweise, dass Propolis, Gelee Royale oder Bienengift Krebszellen am Wachstum, oder der Ausbreitung hindern oder sie gar abtöten können [8, 9].**

Allerdings bleibt fraglich, ob diese Produkte auch im menschlichen Körper gegen Krebs wirken. Für einen derartigen Nachweis wären gut durchgeführte klinische Studien mit menschlichen Patienten notwendig. Solche Untersuchungen sind aber derzeit Mangelware. Ob Produkte von Bienen einen Beitrag in der Krebstherapie leisten können, lässt sich daher derzeit nicht sagen.

Unterstützung bei Strahlentherapie

Wir konnten jedoch einige Studien finden, die untersucht haben, ob Produkte von Bienen die Nebenwirkungen von Chemo- und Strahlentherapien mildern können. Das Problem dieser Krebsbehandlungen ist, dass sie nicht nur die sich schnell vermehrenden Krebszellen angreifen, sondern auch gesunde, sich rasch teilende Körperzellen wie die Zellen der Mundschleimhaut schädigen. Das führt dazu, dass viele Patienten mit

Tumoren im Kopf- oder Halsbereich während einer solchen Behandlung mit einer schmerzhaften Entzündung der Mundschleimhaut zu kämpfen haben. Im schlimmsten Fall machen die dadurch verursachten Schmerzen Essen und Trinken unmöglich und die Betroffenen verlieren viel Gewicht [1] [13]. Die Behandlung einer solchen Entzündung ist schwierig und langwierig. Neben einer gezielten Mundpflege, verschiedenen Mundspüllösungen und Medikamenten verwenden manche Betroffenen auch Honig.

Kommentar vom Autor von [www.bienen-zur-gesundheit.de](http://www.bienen-zur-gesundheit.de):

Es liegt noch viel Arbeit vor uns, diese Studien nach den strengen Richtlinien der EbM durchzuführen: <http://www.cochrane.de/de/ebm>

Ich werde mir in den nächsten Jahren die Fortschritte der modernen Onkologie zum Stand von 2004 ansehen. [Giftkur ohne Nutzen!](#) Der Spiegel 2004.

<https://www.aerztezeitung.de/Medizin/Chemo-schadet-eher-249067.html>;

<https://www.ncbi.nlm.nih.gov/pubmed/27599138>;

<https://jamanetwork.com/journals/jamaoncology/article-abstract/2398175>;

<https://www.aerzteblatt.de/archiv/172298/Palliative-Krebsbehandlung-Chemotherapie-erhoeht-Lebensqualitaet-haeufig-nicht>

Ich möchte endlich die umfangreichen placebokontrollierten Studien sehen, die beweisen, dass Chemotherapie zur Heilung von Tumorerkrankungen einen wesentlichen Beitrag erbringt.

Zudem verstehe ich nicht, dass das giftige Glyphosat nur mit manipulierten Tierstudienresultaten (20 Ratten über 90 Tage; ab 120 Tage beginnt die Tumorbildung) für die Nahrungskette von Menschen freigegeben wurde, wenn man anhand von Tierstudien angeblich keine Rückschlüsse auf den menschlichen Organismus ziehen kann! ([Das BfR lügt!](#))

Personen aus Österreich können hier kostenlos Fragen zu Gesundheitsthemen stellen. Bitte verwenden Sie diese Chance nicht für Fragen wie: Helfen Hobelspäne gegen Karies. Die Zeit deren Mitarbeiter ist kostbar, die Anfragenliste ist lang und viele von Krankheiten geplagte Mitbürger suchen ebenfalls verzweifelt nach einer Lösung für sich. Sie können auch Fragen zu Studien stellen oder sie zur Bewertung einschicken. Nehmen Sie die Möglichkeit wahr und informieren Sie sich bitte vorher über diese Themen und die Qualität von Standards zu Medizinstudien auf <http://www.cochrane.de/de/ebm>. Ich habe mir als medizinischer Laie, zum Einstieg in das Thema das Buch [Epidemiologie für Dummies](#) besorgt.

Die nun folgende Liste wird regelmäßig um weitere Studien ergänzt und entspricht damit nicht mehr dem ursprünglich eingereichten Umfang!

## **Medizinische Bienenproduktstudien zu verschiedenen Tumorarten (diese Liste wird ständig um aktuelle Studien ergänzt)**

BG = Bienengift, PP = Propolis, GR = Geleé Royal, H = Honig, BP = Bienenpollen

Allein auf PubMed findet man über 3000 Studien zu Propolis und Krebs...

Die Studien sind zur eigenen Recherche angegeben. Eine qualitative medizinische Bewertung nach den Richtlinien der EBM [http://flexikon.doccheck.com/de/Evidenzbasierte\\_Medizin](http://flexikon.doccheck.com/de/Evidenzbasierte_Medizin) wird vom Autor nicht vorgenommen. Dazu lesen sie bitte die Bewertung auf: <https://www.medizin-transparent.at/bienen-krebs>

### **Überblick von Antikrebseigenschaften von Bienenprodukten:**

**Studie 1:** <http://www.sciencedirect.com/science/article/pii/S2221169115303233>

Review of the anticancer activities of bee products

**Studie 2:** <http://www.researchgate.net/publication/262516446>

Cancer therapy with bee products. Systematic review of experimental studies

**Studie 3:** <http://www.ncbi.nlm.nih.gov/pubmed/27471574>

Effects of Animal Venoms and Toxins on Hallmarks of Cancer

### **Bienengift in der Krebstherapie:**

**BG-Studie1:** <https://link.springer.com/article/10.1007%2Fs10555-011-9339-3>

Bee venom in cancer therapy

**BG-Studie 2:** <https://www.ncbi.nlm.nih.gov/pubmed/27677623>

Application of bee venom and its main constituent melittin for cancer treatment

**BG-Studie 3:** <http://ijpsr.com/bft-article/potential-anti-cancer-activity-of-snake-venom-bee-venom-and-their-components-in-liver-and-breast-carcinoma/?view=fulltext>

Potential anti cancer activity of snake venom, bee venom and their components in liver and breast carcinoma

**BG-Studie 4:** <https://www.ncbi.nlm.nih.gov/pubmed/27246873>

Melittin-MIL-2 fusion protein as a candidate for cancer immunotherapy (Lungen- und Brustkrebs)

**BG-Studie 5:** <https://www.mdpi.com/1420-3049/24/5/929>

Bee Venom and Its Peptide Component Melittin Suppress Growth and Migration of Melanoma Cells via Inhibition of PI3K/AKT/mTOR and MAPK Pathways

**BG-Studie 6:** <https://www.ncbi.nlm.nih.gov/pubmed/31382579>

Synergistic Effects of Melittin and Plasma Treatment: A Promising Approach for Cancer Therapy

### **Verschiedene Propolisstudien in der Krebsforschung**

**PP-Studie 1:** <http://sciencedomain.org/abstract/8888>)

Use of Propolis in Cancer Research

**PP-Studie 2:** <http://www.hindawi.com/journals/ecam/2013/731940/>

Polyphenols Isolated from Propolis Augment TRAIL-Induced Apoptosis in Cancer Cells

**PP-Studie 3:** <https://www.ncbi.nlm.nih.gov/pubmed/27698914>

Molecular Characterization and Enhancement of Anticancer Activity of Caffeic Acid Phenethyl Ester by  $\gamma$  Cyclodextrin

**PP-Studie 4:** <http://www.tandfonline.com/doi/full/10.3109/19390211.2015.1008614>

Emerging Adjuvant Therapy for Cancer: Propolis and its Constituents

**PP-Studie 5:** <https://www.ncbi.nlm.nih.gov/pubmed/27890584>

A sedge plant as the source of Kangaroo Island propolis rich in prenylated p-coumarate ester and stilbenes

**PP-Studie 6:** <http://www.sciencedirect.com/science/article/pii/S0753332216308848>

Synergistic anti-cancer effects of galangin and berberine through apoptosis induction and proliferation inhibition in oesophageal carcinoma cells

### **Gelee Royal und Honig in der Krebstherapie**

**H- + GR-Studie 1:** <https://www.ncbi.nlm.nih.gov/pubmed/28548561>

Effect of Honey and Royal Jelly against Cisplatin-Induced Nephrotoxicity in Patients with Cancer

### **Augenkrebs - uveal melanoma**

**PP-Studie 1:** <https://www.ncbi.nlm.nih.gov/pubmed/28105189>

Chrysin induces cell apoptosis in human uveal melanoma cells via intrinsic apoptosis

### **Bauchspeicheldrüsenkrebs - Pancreatic cancer**

**PP-Studie 1:** <http://www.hindawi.com/journals/ecam/2013/270906/>

Caffeic Acid Phenethyl Ester Inhibits Epithelial-Mesenchymal Transition of Human Pancreatic Cancer Cells

**PP-Studie 2:** <https://www.ncbi.nlm.nih.gov/pubmed/17950610>

Constituents of Brazilian red propolis and their preferential cytotoxic activity against human pancreatic PANC-1 cancer cell line in nutrient-deprived condition

**PP-Studie 3:** <https://www.ncbi.nlm.nih.gov/pubmed/29318976>

Algerian Propolis Potentiates Doxorubicin Mediated Anticancer Effect Against Human Pancreatic PANC-1 Cancer Cell Line through Cell Cycle Arrest, Apoptosis Induction and P-Glycoprotein Inhibition.

**PP-Studie 4:** <https://www.ncbi.nlm.nih.gov/pubmed/28783356>

Chemical Constituents of Propolis from Vietnamese Trigona minor and Their Antiausterity Activity against the PANC-1 Human Pancreatic Cancer Cell Line

**PP-Studie 5:** <https://www.ncbi.nlm.nih.gov/pubmed/28442678>

Fronodoside A from sea cucumber and nymphaeols from Okinawa propolis: Natural anti-cancer agents that selectively inhibit PAK1 in vitro

**PP-Studie 6:** <https://www.ncbi.nlm.nih.gov/pubmed/28339071>

Direct interaction between caffeic acid phenethyl ester and human neutrophil elastase inhibits the growth and migration of PANC-1 cells

**BG-Studie 7:** <https://www.ncbi.nlm.nih.gov/pubmed/28428074>

Melittin inhibits tumor growth and decreases resistance to gemcitabine by downregulating cholesterol pathway gene CLU in pancreatic ductal adenocarcinoma

### **Blasenkrebs - Bladder cancer**

**BG-Studie 1:** <http://onlinelibrary.wiley.com/doi/10.1111/j.1442-2042.2011.02876.x/epdf>

Bee venom induces apoptosis through intracellular Ca<sup>2+</sup>-modulated intrinsic death pathway in human bladder cancer cells

**H-Studie 2:** <http://www.ncbi.nlm.nih.gov/pubmed/12657101>

Antineoplastic activity of honey in an experimental bladder cancer implantation model - in vivo and in vitro studies

**PP-Studie 3:** <http://www.ncbi.nlm.nih.gov/pubmed/22850703>

Angiogenesis inhibition by green propolis and the angiogenic effect of L-lysine on bladder cancer in rats

**PP-Studie 4:** <http://www.hindawi.com/journals/ecam/2014/639856/>

Brazilian Red Propolis Induces Apoptosis-Like Cell Death and Decreases Migration Potential in Bladder Cancer Cells

**PP-Studie 5:** <http://hrcak.srce.hr/36004?lang=en>

Propolis and its flavonoid compounds cause cytotoxicity on human urinary bladder transitional cell carcinoma in primary culture

**PP-Studie 6:** <http://pharmacologyonline.silae.it/files/archives/2006/vol3/036.Basic.pdf>

Cytotoxicity of propolis and its polyphenolic compounds on primary culture of human urinary bladder transitional cell carcinoma

### **Brustkrebs - Breast cancer**

**PP-Studie 1:** <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3898618/>

Propolis and its active component caffeic acid phenethyl ester can modulate breast cancer therapeutic targets via an Epigenetically Mediated Mechanism of Action

**PP-Studie 2:** <http://www.doiserbia.nb.rs/img/doi/0354-4664/2015/0354-46641500019M.pdf>

In vitro chemoprotective and anticancer activities of propolis in human lymphocytes and breast cancer cells

**PP-Studie 3:** <http://www.mdpi.com/1420-3049/20/5/9242/htm>

Caffeic Acid Phenethyl Ester and Ethanol Extract of Propolis Induce the Complementary Cytotoxic Effect on Triple-Negative Breast Cancer Cell Lines molecules

**PP-Studie 4:** <http://clincancerres.aacrjournals.org/content/21/8/1877.full.pdf+html>

Caffeine and Caffeic Acid Inhibit Growth and Modify Estrogen Receptor and Insulin-like Growth Factor I Receptor Levels in Human Breast Cancer

**PP-Studie 5:** <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4777451/pdf/cm-89-104.pdf>

Synergistic effects induced by combined treatment of aqueous extract of propolis and venom

**PP-Studie 6:** <http://www.tandfonline.com/doi/abs/10.1080/01635581.2016.1153669?journalCode=hnuc20>

Could Caffeic Acid Phenethyl Ester Expand the Antitumor Effect of Tamoxifen in Breast Carcinoma

**PP-Studie 7:** <http://www.ncbi.nlm.nih.gov/pubmed/23969634>

A flavonoid chrysin suppresses hypoxic survival and metastatic growth of mouse breast cancer cells

**PP-Studie 8:** <http://www.hindawi.com/journals/omcl/2016/3017108/>

Modulation of Tamoxifen Cytotoxicity by Caffeic Acid Phenethyl Ester in MCF-7 Breast Cancer Cells

**PP-Studie 9:** <http://www.hindawi.com/journals/ecam/2014/280120/>

Antitumor Activity of Chinese Propolis in Human Breast Cancer MCF-7 and MDA-MB-231 Cells

**PP-Studie 10:** <https://www.ncbi.nlm.nih.gov/pubmed/21537887>

Caffeic Acid Phenethyl Ester (CAPE) derived from propolis, a honeybee product, inhibits growth of breast cancer stem cells

**PP-Studie 11:** <https://www.ncbi.nlm.nih.gov/pubmed/28950845>

Ethanol extract of propolis and its constituent caffeic acid phenethyl ester inhibit breast cancer cells proliferation in inflammatory microenvironment by inhibiting TLR4 signal pathway and inducing apoptosis and autophagy

**PP-Studie 12:** <https://www.ncbi.nlm.nih.gov/pubmed/28926932>

Comparison of Two Components of Propolis: Caffeic Acid (CA) and Caffeic Acid Phenethyl Ester (CAPE) Induce Apoptosis and Cell Cycle Arrest of Breast Cancer Cells MDA-MB-231

**PP-Studie 13:** <https://www.ncbi.nlm.nih.gov/pubmed/29048370>

Migration Rate Inhibition of Breast Cancer Cells Treated by Caffeic Acid and Caffeic Acid Phenethyl Ester: An In Vitro Comparison Study

**PP-Studie 14:** <https://www.ncbi.nlm.nih.gov/pubmed/30246565>

Caffeic Acid Versus Caffeic Acid Phenethyl Ester in the Treatment of Breast Cancer MCF-7 Cells: Migration Rate Inhibition.

**PP-Studie 15:** <https://www.ncbi.nlm.nih.gov/pubmed/29981677>

Flavonoids, bioactive components of propolis, exhibit cytotoxic activity and induce cell cycle arrest and apoptosis in human breast cancer cells MDA-MB-231 and MCF-7 - a comparative study

**PP-Studie 16:** <https://www.ncbi.nlm.nih.gov/pubmed/29748880>

The cytotoxic effects of propolis on breast cancer cells involve PI3K/Akt and ERK1/2 pathways, mitochondrial membrane potential, and reactive oxygen species generation

**PP-Studie 17:** <https://www.ncbi.nlm.nih.gov/pubmed/29579978>

Cytotoxic, proapoptotic and antioxidative potential of flavonoids isolated from propolis against colon (HCT-116) and breast (MDA-MB-231) cancer cell lines

**PP-Studie 18:** <https://www.ncbi.nlm.nih.gov/pubmed/30246565>

Caffeic Acid Versus Caffeic Acid Phenethyl Ester in the Treatment of Breast Cancer MCF-7 Cells: Migration Rate Inhibition

**PP-Studie 19:** <https://www.ncbi.nlm.nih.gov/pubmed/31066794>

Red propolis and L-lysine on angiogenesis and tumor growth in a new model of hamster cheek pouch inoculated with Walker 256 tumor cells

**GR-Studie 20:** [https://www.ijstage.ijst.go.jp/article/bbb/71/1/71\\_60453/pdf](https://www.ijstage.ijst.go.jp/article/bbb/71/1/71_60453/pdf)

Effect of Royal Jelly on Bisphenol A-Induced Proliferation of Human Breast Cancer Cells

**GR-Studie 21:** <https://www.ncbi.nlm.nih.gov/pubmed/29344209>

The effect of royal jelly on the growth of breast cancer in mice

**H-Studie 22:** <http://www.hindawi.com/journals/ecam/2013/989841/>

Tualang Honey Promotes Apoptotic Cell Death Induced by Tamoxifen in Breast Cancer Cell Lines

**BP-Studie 23:** <http://www.sciencedirect.com/science/article/pii/S2221169115309436>

Bee pollen extract of Malaysian stingless bee enhances the effect of cisplatin on breast cancer cell lines

**BP- + H-Studie 24:** <https://www.ncbi.nlm.nih.gov/pubmed/26171198>

Bee pollen and honey for the alleviation of hot flushes and other menopausal symptoms in breast cancer patients

**BG-Studie 25:** <http://www.ncbi.nlm.nih.gov/pubmed/19896266>

Selective death of human breast cancer cells by lytic immunoliposomes: Correlation with their HER2 expression level

**BG-Studie 26:** <http://www.ncbi.nlm.nih.gov/pubmed/18468409>

The role of mitochondria in bee venom-induced apoptosis in human breast cancer MCF7 cells

**BG-Studie 27:** <https://www.ncbi.nlm.nih.gov/pubmed/24675423>

Melittin suppresses EGF-induced cell motility and invasion by inhibiting PI3K/Akt/mTOR signaling pathway in breast cancer cells

**BG-Studie 28:** <https://www.ncbi.nlm.nih.gov/pubmed/30460157>

Anti-cancer effect of bee venom on human MDA-MB-231 breast cancer cells using Raman spectroscopy

### **Darmkrebs - Colon cancer**

**BG-Studie 1:** <http://www.ncbi.nlm.nih.gov/pubmed/26561202>

Anti-cancer effect of bee venom on colon cancer cell growth by activation of death receptors and inhibition of nuclear factor kappa B

**BG-Studie 2:** <https://www.ncbi.nlm.nih.gov/pubmed/23110475>

Melittin suppresses VEGF-A-induced tumor growth by blocking VEGFR-2 and the COX-2-mediated MAPK signaling pathway

**BG-Studie 3:** <https://www.ncbi.nlm.nih.gov/pubmed/31622415>

The membrane effects of melittin on gastric and colorectal cancer

**PP-Studie 4:** <http://www.ncbi.nlm.nih.gov/pubmed/25500581>

Comprehensive Suppression of All Apoptosis-Induced Proliferation Pathways as a Proposed Approach to Colorectal Cancer Prevention and Therapy

**PP-Studie 5:** <http://www.ncbi.nlm.nih.gov/pubmed/25931350>

The Ethanol Extract of Polish Propolis Exhibits Anti-Proliferative and Pro-Apoptotic Effect on HCT 116 Colon Cancer and Me45 Malignant Melanoma Cells In Vitro Conditions

**PP-Studie 6:** <https://repository.lib.gifu-u.ac.jp/bitstream/123456789/34448/1/z0900061.pdf>

Growth inhibitory activity of ethanol extracts of Chinese and Brazilian propolis in four human colon carcinoma cell lines

**PP-Studie 7:** <https://www.ncbi.nlm.nih.gov/pubmed/16224795>

Artepillin C in Brazilian propolis induces G(0)/G(1) arrest via stimulation of Cip1/p21 expression in human colon cancer cells

**PP-Studie 8:** <https://www.ncbi.nlm.nih.gov/pubmed/16926625>

Caffeic acid phenethyl ester induces growth arrest and apoptosis of colon cancer cells via the beta-catenin/T-cell factor signaling

**PP-Studie 9:** <https://www.ncbi.nlm.nih.gov/pubmed/15996024>

Effect of caffeic acid phenethyl ester on proliferation and apoptosis of colorectal cancer cells in vitro

**PP-Studie 10:** <https://www.ncbi.nlm.nih.gov/pubmed/28472978>

Molecular mechanism of cardol, isolated from *Trigona incisa* stingless bee propolis, induced apoptosis in the SW620 human colorectal cancer cell line

**PP-Studie 11:** <https://www.ncbi.nlm.nih.gov/pubmed/29899208>

Chrysin Attenuates Cell Viability of Human Colorectal Cancer Cells through Autophagy Induction Unlike 5-Fluorouracil/Oxaliplatin

**H-Studie 12:** <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3353276/>

Growth inhibition by caffeic acid, one of the phenolic constituents of honey, in HCT 15 colon cancer cells

**H-Studie 13:** <http://www.ncbi.nlm.nih.gov/pubmed/26434873>

Mechanism of Chemoprevention against Colon Cancer Cells Using Combined Gelam Honey and Ginger Extract via mTOR and Wnt<sub>β</sub>-catenin Pathways

### **Eierstockkrebs - Ovarian cancer**

**BG-Studie 1:** [http://apjmt.mums.ac.ir/pdf\\_5084\\_23033e04324322c2849fe984c9622980.html](http://apjmt.mums.ac.ir/pdf_5084_23033e04324322c2849fe984c9622980.html)

Cytotoxic and Pro-Apoptotic Effects of Honey Bee Venom and Chrysin on Human Ovarian Cancer Cells

**BG-Studie 2:** <http://www.ipcbee.com/vol41/011-ICEBB2012-H00024.pdf>

The Lethal Effect of Honey Bee Venom on Human Ovarian Cancer Cisplatin Resistance Cell Line A2780cp

**BG-Studie 3:** <http://www.sciencedirect.com/science/article/pii/S0041008X11004017>



Anti-cancer effect of bee venom toxin and melittin in ovarian cancer cells through induction of death receptors and inhibition of JAK2/STAT3 pathway

**BG-Studie 4:** <http://www.theacupuncture.org/upload/33702247.pdf>

Effect of Bee Venom Death Receptor Dependent Apoptosis and JAK2/STAT3 Pathway in the Ovarian Cancer

**BG-Studie 5:** <https://www.ncbi.nlm.nih.gov/pubmed/27754384>

Metabolomic Profiling of the Effects of Melittin on Cisplatin Resistant and Cisplatin Sensitive Ovarian Cancer Cells Using Mass Spectrometry and Biolog Microarray Technology

**BG-Studie 6:** <https://www.ncbi.nlm.nih.gov/pubmed/25394558>

Expression and anticancer activity analysis of recombinant human uPA1-43-melittin

**BG-Studie 7:** <https://www.ncbi.nlm.nih.gov/pubmed/23443963>

A novel melittin-MhIL-2 fusion protein inhibits the growth of human ovarian cancer SKOV3 cells in vitro and in vivo tumor growth

**BG-Studie 8:** <https://www.ncbi.nlm.nih.gov/pubmed/23301148>

The synergistic cytotoxic effect of cisplatin and honey bee venom on human ovarian cancer cell line A2780cp

**BG-Studie 9:** <https://www.ncbi.nlm.nih.gov/pubmed/26718643>

Expression and purification of recombinant ATF-mellitin, a new type fusion protein targeting ovarian cancer cells, in *P. pastoris*

**BG-Studie 10:** <https://www.ncbi.nlm.nih.gov/pubmed/28420117>

Metabolomic Profiling of the Synergistic Effects of Melittin in Combination with Cisplatin on Ovarian Cancer Cells

**BG-Studie 11:** <https://www.ncbi.nlm.nih.gov/pubmed/29562696>

Anticancer Activity of Toxins from Bee and Snake Venom-An Overview on Ovarian Cancer

**PP-Studie 12:** <https://www.ncbi.nlm.nih.gov/pubmed/20924642>

Antiangiogenic properties of an unusual benzo[k,l]xanthene lignan derived from CAPE (caffeic acid phenethyl ester)

### **Gebärmutterhalskrebs - Cervix cancer**

**BG-Studie 1:** <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0069380>

Melittin Suppresses HIF-1 $\alpha$ -VEGF Expression through Inhibition of ERK and mTOR\_p70S6K Pathway in Human Cervical Carcinoma Cells

**BG-Studie 2:** [https://www.researchgate.net/publication/235740957\\_A\\_novel\\_melittin-MhIL-2\\_fusion\\_protein\\_inhibits\\_the\\_growth\\_of\\_human\\_ovarian\\_cancer\\_SKOV3\\_cells\\_in\\_vitro\\_and\\_in\\_vivo\\_tumor\\_growth](https://www.researchgate.net/publication/235740957_A_novel_melittin-MhIL-2_fusion_protein_inhibits_the_growth_of_human_ovarian_cancer_SKOV3_cells_in_vitro_and_in_vivo_tumor_growth)

A novel melittin-MhIL-2 fusion protein inhibits the growth of human ovarian cancer SKOV3 cells in vitro and in vivo tumor growth

**BG-Studie 3:** [http://www.theacupuncture.org/upload/acupunct\\_31-2-75\\_85-8.pdf](http://www.theacupuncture.org/upload/acupunct_31-2-75_85-8.pdf)

Inhibitory Effect of Bee Venom Toxin on the Growth of Cervix Cancer C33A Cells via Death Receptor Expression and Apoptosis

**BG-Studie 4:** [http://feyz.kaums.ac.ir/files/site1/user\\_files\\_9ca9a9/sayyadi-A-10-176-1176-6e31a05.pdf](http://feyz.kaums.ac.ir/files/site1/user_files_9ca9a9/sayyadi-A-10-176-1176-6e31a05.pdf)

The effect of melittin on the inhibition of Rac1 expression in HeLa cervical cancer cell lines

**BG-Studie 5:** <http://www.ncbi.nlm.nih.gov/pubmed/25633640>

Honeybee venom possesses anticancer and antiviral effects by differential inhibition of HPV E6 and E7 expression on cervical cancer cell line

**BG-Studie 6:** <https://www.ncbi.nlm.nih.gov/pubmed/18507026>

Bee venom induced cell cycle arrest and apoptosis in human cervical epidermoid carcinoma Ca Ski cells

**BG-Studie 7:** <https://www.ncbi.nlm.nih.gov/pubmed/25493319>

Combined antitumor effects of bee venom and cisplatin on human cervical and laryngeal carcinoma cells and their drug resistant sublines

**BG-Studie 8:** <https://www.ncbi.nlm.nih.gov/pubmed/25730901>

Bee venom inhibits growth of human cervical tumors in mice

**BG-Studie 9:** <https://link.springer.com/content/pdf/10.1007%2Fs10989-017-9641-1.pdf>

Apoptotic Effect of Melittin Purified from Iranian Honey Bee Venom on Human Cervical Cancer HeLa Cell Line

**PP-Studie 10:** <https://www.ncbi.nlm.nih.gov/pubmed/23497083>

Caffeic acid phenethyl ester induces E2F-1-mediated growth inhibition and cell-cycle arrest in human cervical cancer cells

**PP-Studie 11:** <https://www.ncbi.nlm.nih.gov/pubmed/28471399>

Brazilian Green Propolis Extract Synergizes with Protoporphyrin IX-mediated Photodynamic Therapy via Enhancement of Intracellular Accumulation of Protoporphyrin IX and Attenuation of NF- $\kappa$ B and COX-2

**PP-Studie 12:** <https://www.ncbi.nlm.nih.gov/pubmed/29866020>

Artepillin C induces selective oxidative stress and inhibits migration and invasion in a comprehensive panel of human cervical cancer cell lines

**H-Studie 13:** <https://www.ncbi.nlm.nih.gov/pubmed/21167897>

Tualang honey induces apoptosis and disrupts the mitochondrial membrane potential of human breast and cervical cancer cell lines

## **Hautkrebs - Skin cancer**

**BG-Studie 1:** <http://www.ncbi.nlm.nih.gov/pubmed/24661024>

Cationic membrane-active peptides - anticancer and antifungal activity as well as penetration into human skin

**PP-Studie 2:** <http://www.scielo.br/pdf/acb/v29n2/0102-8650-acb-29-02-00111.pdf>

Modulatory activity of brazilian red propolis on chemically induced dermal carcinogenesis

**PP-Studie 3:** <http://www.ncbi.nlm.nih.gov/pubmed/7680281>

Inhibition of Tumor Promoter-mediated Processes in Mouse Skin and Bovine Lens by Caffeic Acid Phenethyl Ester

### **Hirntumor - Glioblastom**

**BG-Studie 1:** [http://biotech-health.com/?page=article&article\\_id=27547](http://biotech-health.com/?page=article&article_id=27547)

Bee Venom Induces Unfolded Protein Response in A172 Glioblastoma Cell Line

**PP-Studie 2:**

[https://www.researchgate.net/publication/282979263\\_Brazilian\\_red\\_propolis\\_Phytochemical\\_screening\\_anti\\_oxidant\\_activity\\_and\\_effect\\_against\\_cancer\\_cells](https://www.researchgate.net/publication/282979263_Brazilian_red_propolis_Phytochemical_screening_anti_oxidant_activity_and_effect_against_cancer_cells)

Brazilian red propolis - phytochemical screening antioxidant activity and effect against cancer cells

**H-Studie 3:** <https://www.ncbi.nlm.nih.gov/pubmed/31447606>

Anti-Cancer Properties of Heterotrigena itama sp. Honey Via Induction of Apoptosis in Malignant Glioma Cells

### **Knochenmarkkrebs - Bone-marrow cancer**

**BG-Studie 1:** <http://www.ncbi.nlm.nih.gov/pubmed/3767954>

Differential cytolysis of murine spleen, bone-marrow and leukemia cells by melittin reveals differences in membrane topography.

### **Kopftumor**

**PP-Studie1:** <https://www.ncbi.nlm.nih.gov/pubmed/28547940>

Cytotoxic Activity of Propolis Extracts from the Stingless Bee Trigona Sirindhornae Against Primary and Metastatic Head and Neck Cancer Cell Lines

### **Leberkrebs - Liver cancer - Hepatocarcinoma**

**BG-Studie 1:** <http://www.ncbi.nlm.nih.gov/pubmed/18506888>

Melittin Prevents Liver Cancer Cell Metastasis Through Inhibition of the Rac1-Dependent Pathway

**BG-Studie 2:** <http://www.ijcep.com/files/ijcep0011857.pdf>

Triple-controlled oncolytic adenovirus expressing melittin to exert inhibitory efficacy on hepatocellular carcinoma

**BG-Studie 3:** <http://www.spandidos-publications.com/ol/11/1/610>

Melittin suppresses cathepsin S-induced invasion and angiogenesis via blocking of the VEGF-A\_VEGFR-2\_MEK1\_ERK1\_2 pathway in human hepatocellular carcinoma

**BG-Studie 4:** <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4008415/pdf/pone.0095520.pdf>

Melittin Restores PTEN Expression by Down-Regulating HDAC2 in Human Hepatocellular Carcinoma HepG2 Cells

**BG-Studie5:** <http://ijpsr.com/bft-article/potential-anti-cancer-activity-of-snake-venom-bee-venom-and-their-components-in-liver-and-breast-carcinoma/?view=fulltext>

Potential anti cancer activity of snake venom, bee venom and their components in liver and breast carcinoma

**BG-Studie 6:** <https://www.ncbi.nlm.nih.gov/pubmed/28585428>

Anti-hepatocarcinoma activity of TT-1, an analog of melittin, combined with interferon- $\alpha$  via promoting the interaction of NKG2D and MICA

**PP-Studie 7:** <http://www.hindawi.com/journals/ecam/2013/658370/>

A Taiwanese Propolis Derivative Induces Apoptosis through Inducing Endoplasmic Reticular Stress and Activating Transcription Factor-3 in Human Hepatoma Cells

**PP-Studie 8:** <https://www.ncbi.nlm.nih.gov/pubmed/31293975>

Chemical and Pharmacological Aspects of Caffeic Acid and Its Activity in Hepatocarcinoma

**H-Studie 9:** <http://ict.sagepub.com/content/11/4/354.long>

Antineoplastic effects of bee honey and Nigella sativa on hepatocellular carcinoma cells

**H-Studie 10:** <https://www.ncbi.nlm.nih.gov/pubmed/31516840>

Effect of co-administration of Bee honey and some chemotherapeutic drugs on dissemination of hepatocellular carcinoma in rats.

## Leukämie

**H-Studie 1:** <http://www.hindawi.com/journals/bmri/2015/307094/>

Antileukemic Effect of Tualang Honey on Acute and Chronic Leukemia Cell Lines

**H-Studie 2:** <http://www.ncbi.nlm.nih.gov/pubmed/27062956>

Effect of honey on febrile neutropenia in children with acute lymphoblastic leukemia: A randomized crossover open-labeled study.

**H-Studie 3:** <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3732426/>

Antiproliferative and apoptotic effects of spanish honeys

**H-Studie 4:** <https://www.ncbi.nlm.nih.gov/pubmed/27642340>

Effects of Dietary Honey and Ardeh Combination on Chemotherapy- Induced Gastrointestinal and Infectious Complications in Patients with Acute Myeloid Leukemia: A Double-Blind Randomized Clinical Trial

**BG-Studie 5:** <http://www.ncbi.nlm.nih.gov/pubmed/3767954>

Differential cytolysis of murine spleen, bone-marrow and leukemia cells by melittin reveals differences in membrane topography.

**BG-Studie 6:** <https://www.ncbi.nlm.nih.gov/pubmed/28862224>

Honey bee venom combined with 1,25-dihydroxyvitamin D<sub>3</sub> as a highly efficient inducer of differentiation in human acute myeloid leukemia cells

**GR-Studie 7:** <http://www.ncbi.nlm.nih.gov/pubmed/3570105>

Antitumor effects of royal jelly

**GR-Studie 8:** <http://www.ncbi.nlm.nih.gov/pubmed/13922208>

Studies on the in vitro antitumor activity of fatty acids. IV. The esters of acids closely related to 10-hydroxy-2-decenoic acid from royal jelly against transplantable mouse leukemia

**GR-Studie 9:** <http://www.ncbi.nlm.nih.gov/pubmed/13657083>

Activity of 10-hydroxydecenoic acid from royal jelly against experimental leukaemia and ascitic tumours

**PP-Studie 10:** <https://www.hindawi.com/journals/ecam/2012/918956/>

Comparison of Effects of the Ethanolic Extracts of Brazilian Propolis on Human Leukemic Cells As Assessed with the MTT Assay

**PP-Studie 11:** <https://www.ncbi.nlm.nih.gov/pubmed/11299738>

Apoptosis of human leukemia cells induced by Artepillin C, an active ingredient of Brazilian Propolis

**PP-Studie 12:** [http://www.lrjournal.com/article/S0145-2126\(05\)00177-3/abstract](http://www.lrjournal.com/article/S0145-2126(05)00177-3/abstract)

Evaluation of Manisa Propolis Effect on Leukemia Cell Line by Telomerase Activity

**PP-Studie 13:** <https://www.ncbi.nlm.nih.gov/pubmed/27810783>

Evaluation of the miRNA profiling and effectiveness of the propolis on B-cell acute lymphoblastic leukemia cell line

**PP-Studie 14:** <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3977507/>

Polyphenols as Key Players for the Antileukaemic Effects of Propolis

**PP-Studie 15:** [https://www.jstage.jst.go.jp/article/bpb/27/5/27\\_5\\_727/article](https://www.jstage.jst.go.jp/article/bpb/27/5/27_5_727/article)

Inhibitory Effect of Propolis on the Growth of Human Leukemia U937

**PP-Studie 16:** <https://www.ncbi.nlm.nih.gov/pubmed/15848013>

Effects of propolis on cell growth and gene expression in HL-60 cells

**PP-Studie 17:** <https://www.ncbi.nlm.nih.gov/pubmed/20221944>

Propolis inhibits the proliferation of human leukaemia HL-60 cells by inducing apoptosis through the mitochondrial pathway

### **Lungenkrebs – Lung cancer**

**BG-Studie 1:** [https://www.jstage.jst.go.jp/article/jphs/91/2/91\\_2\\_95/pdf](https://www.jstage.jst.go.jp/article/jphs/91/2/91_2_95/pdf)

Bee Venom Induces Apoptosis and Inhibits Expression of Cyclooxygenase-2 mRNA in Human Lung Cancer Cell Line

**BG-Studie 2:** <http://www.ncbi.nlm.nih.gov/pubmed/25068924>

Cancer cell growth inhibitory effect of bee venom via increase of death receptor 3 expression and inactivation of NF-kappa B in NSCLC cells

**BG-Studie 3:** <http://www.ncbi.nlm.nih.gov/pubmed/24379113>

Co-culture with NK-92MI cells enhanced the anti-cancer effect of bee venom on NSCLC cells by inactivation of NF-κB

**BG-Studie 4:** <http://www.theacupuncture.org/journal/view.php?number=2145>

Bee Venom Enhanced Cytotoxic Effect of Natural Killer Cells on Human Lung Cancer Through Inducing Extrinsic Apoptosis

**BG-Studie 5:** <https://www.ncbi.nlm.nih.gov/pubmed/28903394>

Melittin suppresses tumor progression by regulating tumor-associated macrophages in a Lewis lung carcinoma mouse model

**PP-Studie 6:** <http://www.ncbi.nlm.nih.gov/pubmed/26700423>

Antiproliferative and proapoptotic activity of Turkish propolis on human lung cancer cell line

**PP-Studie 7:** <http://www.ncbi.nlm.nih.gov/pubmed/26206395>

Brazilian green propolis induced apoptosis in human lung cancer A549 cells through mitochondrial-mediated pathway

**PP-Studie 8:** <http://www.ncbi.nlm.nih.gov/pubmed/23280020>

The anticancer mechanism of caffeic acid phenethyl ester (CAPE): review of melanomas, lung and prostate cancers

**PP-Studie 9:** <http://www.ncbi.nlm.nih.gov/pubmed/17530771>

Propolin H from Taiwanese propolis induces G1 arrest in human lung carcinoma cells

**PP-Studie 10:** <http://www.ncbi.nlm.nih.gov/pubmed/12706872>

Inhibitory effects of propolis granular A P C on 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone-induced lung tumorigenesis in A/J mice

**PP-Studie 11:** <http://www.ncbi.nlm.nih.gov/pubmed/11315623>

Pulmonary carcinogenesis induced by ferric nitrilotriacetate in mice and protection from it by Brazilian propolis and artemisinin

**PP-Studie 12:** <http://www.mundialsiglo21.com/novedades/Inhibitory.pdf>

Inhibitory effects of Propolis granular A P C on 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone-induced lung tumorigenesis in A/J mice

**PP-Studie 13:** <https://www.ncbi.nlm.nih.gov/pubmed/15304968>

Cell killing and radiosensitization by caffeic acid phenethyl ester (CAPE) in lung cancer cells

**PP-Studie 14:** <https://www.ncbi.nlm.nih.gov/pubmed/29681982>

Propolin C Inhibited Migration and Invasion via Suppression of EGFR-Mediated Epithelial-to-Mesenchymal Transition in Human Lung Cancer Cells

**H-Studie 15:** <https://www.ncbi.nlm.nih.gov/pubmed/31491838>

Inhibition of Tyrosine-Phosphorylated STAT3 in Human Breast and Lung Cancer Cells by Manuka Honey is Mediated by Selective Antagonism of the IL-6 Receptor

## **Lymphatischer Krebs**

**PP-Studie 1:** <https://www.ncbi.nlm.nih.gov/pubmed/15661398/>

Histone deacetylase inhibitors profoundly decrease proliferation of human lymphoid cancer cell lines

## **Lymphdrüsenkrebs - Lymphoma**

**PP-Studie 1:** <https://www.ncbi.nlm.nih.gov/pubmed/26367700>

Apoptotic induction by pinobanksin and some of its ester derivatives from Sonoran propolis in a B-cell lymphoma cell line

## **Magenkrebs - Gastritic cancer**

**BG-Studie 1:** <http://www.ncbi.nlm.nih.gov/pubmed/26316200>

First report on the isolation of melittin from Iranian honey bee venom and evaluation of its toxicity on gastric cancer AGS cells

**BG-Studie 2:** <http://www.ncbi.nlm.nih.gov/pubmed/27003995>

\Melittin induces human gastric cancer cell apoptosis via activation of mitochondrial pathway

**H-Studie 3:** <http://www.hindawi.com/journals/omcl/2016/3643824/>

Antioxidant, Anti-inflammatory, and Antiulcer Potential of Manuka Honey against Gastric Ulcer in Rats

**H-Studie 4:** <https://www.hindawi.com/journals/ecam/2018/7515692/>

Antiulcer Effect of Honey in Nonsteroidal Anti-Inflammatory Drugs Induced Gastric Ulcer Model in Rats: A Systematic Review

**PP-Studie 5:**

[https://www.researchgate.net/publication/259465154\\_Effect\\_of\\_propolis\\_on\\_the\\_healing\\_of\\_ethanol-and\\_acetic\\_acid\\_chronic\\_gastric\\_ulcer\\_in\\_rats](https://www.researchgate.net/publication/259465154_Effect_of_propolis_on_the_healing_of_ethanol-and_acetic_acid_chronic_gastric_ulcer_in_rats)

Effect of propolis on the healing of ethanol- and acetic acid chronic gastric ulcer in rats

**PP-Studie 6:** <https://www.ncbi.nlm.nih.gov/pubmed/29318976>

Algerian Propolis Potentiates Doxorubicin Mediated Anticancer Effect against Human Pancreatic PANC-1 Cancer Cell Line through Cell Cycle Arrest, Apoptosis Induction and P-Glycoprotein Inhibition

## **Mundkrebs - Oral cancer**

**PP-Studie 1:** [http://www.najms.org/temp/NorthAmJMedSci66250-2366722\\_063427.pdf](http://www.najms.org/temp/NorthAmJMedSci66250-2366722_063427.pdf)

Propolis in Dentistry and Oral Cancer Management

**PP-Studie 2:** [www.mdpi.com/1422-0067/16/5/10748/pdf](http://www.mdpi.com/1422-0067/16/5/10748/pdf)

Caffeic Acid Phenethyl Ester Is a Potential Therapeutic Agent for Oral Cancer

**PP-Studie 3:** <http://www.hindawi.com/journals/ecam/2012/732578/citations/>

Caffeic Acid Phenethyl Ester Inhibits Oral Cancer Cell Metastasis by Regulating Matrix Metalloproteinase-2 and the Mitogen-Activated Protein Kinase Pathway

**PP-Studie 4:** <https://www.ncbi.nlm.nih.gov/pubmed/28181403>

Caffeic acid phenethyl ester upregulates N-myc downstream regulated gene 1 via ERK pathway to inhibit human oral cancer cell growth in vitro and in vivo

## Neuroblastom

**PP-Studie 1:** <http://onlinelibrary.wiley.com/doi/10.1002/fsn3.131/epdf>

Histone Deacetylase Inhibitory Effect of Brazilian Propolis and Its Association with the Antitumor Effect in Neuro2a Cells

**PP-Studie 2:** <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4946423/>

Propolis Inhibits Neurite Outgrowth in Differentiating SH-SY5Y Human Neuroblastoma Cells

**PP-Studie 3:** <https://www.ncbi.nlm.nih.gov/pubmed/28000163>

Pinocembrin Attenuates Mitochondrial Dysfunction in Human Neuroblastoma SH-SY5Y Cells Exposed to Methylglyoxal: Role for the Erk1/2-Nrf2 Signaling Pathway

## Neurofibromatosis

**PP-Studie 1:** <http://www.ncbi.nlm.nih.gov/pubmed/18726924>

CAPE (caffeic acid phenethyl ester)-based propolis extract (Bio 30) suppresses the growth of human neurofibromatosis (NF) tumor xenografts in mice

**PP-Studie 2:** <https://www.ncbi.nlm.nih.gov/pubmed/19003952>

Artepillin C (ARC) in Brazilian green propolis selectively blocks oncogenic PAK1 signaling and suppresses the growth of NF tumors in mice

**PP-Studie 3:** <https://www.ncbi.nlm.nih.gov/pubmed/22466437>

Effective neurofibromatosis therapeutics blocking the oncogenic kinase PAK1

## Nierenkrebs - Renal cancer

**GR-Studie 1:** <https://www.ncbi.nlm.nih.gov/pubmed/30577515>

Oral Intake of Royal Jelly Has Protective Effects Against Tyrosine Kinase Inhibitor-Induced Toxicity in Patients with Renal Cell Carcinoma: A Randomized, Double-Blinded, Placebo-Controlled Trial

**H-Studie 2:** <http://www.ncbi.nlm.nih.gov/pubmed/21472079>

Honey induces apoptosis in renal cell carcinoma

**PP-Studie 3:** <https://www.ncbi.nlm.nih.gov/pubmed/11012980>

Renal carcinogenesis induced by ferric nitrilotriacetate in mice, and protection from it by Brazilian Propolis and Artepillin C

**PP-Studie 4:** <https://www.ncbi.nlm.nih.gov/pubmed/20934479>

Biological activities of Portuguese propolis: protection against free radical-induced erythrocyte damage and inhibition of human renal cancer cell growth in vitro

**PP-Studie 5:** <https://www.ncbi.nlm.nih.gov/pubmed/27403965>

Inhibition of precancerous lesions development in kidneys by chrysin via regulating hyperproliferation, inflammation and apoptosis at pre clinical stage

**PP-Studie 6:** <https://www.ncbi.nlm.nih.gov/pubmed/24403733>



Amelioration of renal carcinogenesis by bee propolis: a chemo preventive approach

#### **Prostatakrebs - Prostata cancer**

**BG-Studie 1:** <http://www.ncbi.nlm.nih.gov/pubmed/21456063>

Anti-cancer effect of bee venom in prostate cancer cells through activation of caspase pathway via inactivation of NF- $\kappa$ B.

**BG-Studie 2:** [http://www.journal.ac/scholar/v13n1/pdf/DHOCBS\\_2010\\_v13n1\\_15.pdf](http://www.journal.ac/scholar/v13n1/pdf/DHOCBS_2010_v13n1_15.pdf)

Bee Venom Inhibits Prostate Cancer Growth in LNCaP Xenografts via Apoptosis

**BG-Studie 3:** <https://www.ncbi.nlm.nih.gov/pubmed/28024889>

Towards prostate cancer gene therapy: Development of a chlorotoxin-targeted nanovector for toxic (melittin) gene delivery

**BP-Studie 4:** <http://www.mdpi.com/1420-3049/20/12/19800/htm>

Polyphenols from Bee Pollen - Structure, Absorption, Metabolism and Biological Activity

**BP-Studie 5:** <http://onlinelibrary.wiley.com/doi/10.1002/ptr.2235/abstract>

A steroid fraction of chloroform extract from bee pollen of *Brassica campestris* induces apoptosis in human prostate cancer PC-3 cells

**BP-Studie 6:** <https://www.tib.eu/de/suchen/id/BLSE%3ARN208941481/>

Brassinolide, a plant sterol from pollen of *Brassica napus* L., induces apoptosis in human prostate cancer PC-3 cells

**PP-Studie 7:** <http://www.ncbi.nlm.nih.gov/pubmed/27191743>

CAPE suppresses migration and invasion of prostate cancer cells via activation of non-canonical Wnt signaling

**PP-Studie 8:** <http://www.hindawi.com/journals/ecam/2013/757628/>

Ethanollic Extract of Polish Propolis: Chemical Composition and TRAIL-R2 Death Receptor Targeting Apoptotic Activity against Prostate Cancer Cells

**PP-Studie 9:** <http://www.scielo.br/pdf/cta/v30n2/38.pdf>

Comparative antiproliferation of human prostate cancer cells by ethanolic extracts of two groups of Brazilian propolis

**PP-Studie 10:** <https://www.ncbi.nlm.nih.gov/pubmed/17671687>

Antiproliferation of human prostate cancer cells by ethanolic extracts of Brazilian propolis and its botanical origin

**PP-Studie 11:** <https://proteomesci.biomedcentral.com/articles/10.1186/1477-5956-9-74>

Effect of Turkish propolis extracts on proteome of prostate cancer cell line

**PP-Studie 12:** <https://www.ncbi.nlm.nih.gov/pubmed/28213961>

Chrysin Induces Death of Prostate Cancer Cells by Inducing ROS and ER Stress

**PP-Studie 13:** <https://www.ncbi.nlm.nih.gov/pubmed/22735465>

Artepillin C (3,5-diprenyl-4-hydroxycinnamic acid) sensitizes LNCaP prostate cancer cells to TRAIL-induced apoptosis

## Zungenkrebs

**PP-Studie 1:** <http://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0157091>

Proapoptotic Activity of Propolis and Their Components on Human Tongue Squamous Cell Carcinoma Cell Line (CAL-27)

**PP-Studie 2:** <https://www.ncbi.nlm.nih.gov/pubmed/29681859>

Constituents of Propolis: Chrysin, Caffeic Acid, p-Coumaric Acid, and Ferulic Acid Induce PRODH/POX-Dependent Apoptosis in Human Tongue Squamous Cell Carcinoma Cell (CAL-27).

## Gegen mehrere Tumor Zell Reihen:

**PP-Studie 1:** <http://www.hindawi.com/journals/bmri/2014/897361/> (Brust-, nicht kleinzelliger Lungen-, Darm-, Gebärmutter- und Leberzellkarzinom)

Cytotoxicity of Portuguese Propolis - The Proximity of the In Vitro Doses for Tumor and Normal Cell Lines

**GR-Studie 2:** <http://www.ncbi.nlm.nih.gov/pubmed/23818369> (Prostata-, Darm- und Brustkrebs)

GE132+Natural: Novel promising dietetic supplement with antiproliferative influence on prostate, colon, and breast cancer cells

## Krebsstammzellen

PP-Dissertation: <http://duepublico.uni-duisburg-essen.de/servlets/DocumentServlet?id=37678>

Isolierung und Charakterisierung antitumoral wirkender Substanzen aus karibischer Propolis mit anti-Krebsstammzellen-Eigenschaften

**PP-Studie 1:** <https://www.ncbi.nlm.nih.gov/pubmed/28223550>

NADH autofluorescence, a new metabolic biomarker for cancer stem cells: Identification of Vitamin C and CAPE as natural products targeting "stemness"

# Medizinische Studien zu Kurkuma in der Tumor-Therapie

Die Studien sind zur eigenen Recherche angegeben. Eine qualitative medizinische Bewertung nach den Richtlinien der EBM [http://flexikon.doccheck.com/de/Evidenzbasierte\\_Medizin](http://flexikon.doccheck.com/de/Evidenzbasierte_Medizin) wird nicht vorgenommen.

KK = Kurkumin

## Allgemeine Bioverfügbarkeit von Kurkumin

**KK-Studie 1:** <http://www.ncbi.nlm.nih.gov/pubmed/24520218>

Recent developments in delivery, bioavailability, absorption and metabolism of curcumin: the golden pigment from golden spice

## Tumore allgemein

**KK-Studie 1:** <https://www.ncbi.nlm.nih.gov/pubmed/21642934>

Curcumin: An Anti-Inflammatory Molecule from a Curry Spice on the Path to Cancer Treatment

**KK-Studie 2:** <https://www.ncbi.nlm.nih.gov/pubmed/22044005>

Curcumin and its formulations: potential anti-cancer agents

**KK-Studie 3:** <https://cmjournal.biomedcentral.com/articles/10.1186/1749-8546-6-31>

Potential applications of curcumin and its novel synthetic analogs and nanotechnology-based formulations in cancer prevention and therapy

**KK-Studie 4:** [www.mdpi.com/1420-3049/19/12/20839/pdf](http://www.mdpi.com/1420-3049/19/12/20839/pdf)

Hybrid Curcumin Compounds: A New Strategy for Cancer Treatment

**KK-Studie 5:** <https://www.ncbi.nlm.nih.gov/pubmed/24439402>

Curcumin nanoformulations: A review of pharmaceutical properties and preclinical studies and clinical data related to cancer treatment

**KK-Studie 6:** <https://www.ncbi.nlm.nih.gov/pubmed/23466484>

New perspectives of curcumin in cancer prevention

**KK-Studie 7:** <http://onlinelibrary.wiley.com/doi/10.1002/cncr.21216/pdf>

Curcumin-Induced Antiproliferative and Proapoptotic Effects in Melanoma Cells Are Associated with Suppression of IB Kinase and Nuclear Factor B Activity and Are Independent of the B-Raf/MitogenActivated/Extracellular Signal-Regulated Protein Kinase Pathway and the Akt Pathway

**KK-Studie 8:** <https://www.ncbi.nlm.nih.gov/pubmed/25566531>

Farmer to pharmacist: curcumin as an anti-invasive and antimetastatic agent for the treatment of cancer

**KK-Studie 9:** <https://www.ncbi.nlm.nih.gov/pubmed/30818786>

A Review of Curcumin and Its Derivatives as Anticancer Agents.

## **Augentumore**

**KK-Studie 1:** <https://www.ncbi.nlm.nih.gov/pubmed/30526546>

Curcumin inhibits proliferation, migration, invasion and promotes apoptosis of retinoblastoma cell lines through modulation of miR-99a and JAK/STAT pathway

## **Blasenkrebs – bladder cancer**

**KK-Studie 1:** <http://www.ncbi.nlm.nih.gov/pubmed/18342436>

Effects of curcumin on bladder cancer cells and development of urothelial tumors in a rat bladder carcinogenesis model

## **Brustkrebs - breast cancer**

**KK-Studie 1:** <http://www.ncbi.nlm.nih.gov/pubmed/27245953>

Activation of microbubbles by low-intensity pulsed ultrasound enhances the cytotoxicity of curcumin involving apoptosis induction and cell motility inhibition in human breast cancer MDA-MB-231 cells

**KK-Studie 2:** <http://www.ncbi.nlm.nih.gov/pubmed/27242900>

Curcumin and Resveratrol as Promising Natural Remedies with Nanomedicine Approach for the Effective Treatment of Triple Negative Breast Cancer.

**KK-Studie 3:** <http://www.hoajonline.com/oncology/2052-6199/1/6>

Curcumin and its derivatives in breast cancer: Current developments and potential for the treatment of drug-resistant cancers

**KK-Studie 4:** <https://www.ncbi.nlm.nih.gov/pubmed/23489691>

Curcumin induces apoptosis in breast cancer cell lines and delays the growth of mammary tumors in neu transgenic mice

**KK-Studie 5:** <https://www.ncbi.nlm.nih.gov/pubmed/29336533>

Targeted Nanocurcumin Therapy Using Annexin A2 Antibody Improves Tumor Accumulation and Therapeutic Efficacy Against Highly Metastatic Breast Cancer

**KK-Studie 6:** <https://www.ncbi.nlm.nih.gov/pubmed/29571289>

Paclitaxel and curcumin coadministration in novel cationic PEGylated niosomal formulations exhibit enhanced synergistic antitumor efficacy

**KK-Studie 7:** <https://www.ncbi.nlm.nih.gov/pubmed/30568488>

Role of curcumin in regulating p53 in breast cancer: an overview of the mechanism of action

**KK-Studie 8:** <https://www.ncbi.nlm.nih.gov/pubmed/30781353>

Curcuma Radix Extract Decreases Mammary Tumor-Derived Lung Metastasis via Suppression of C-C Chemokine Receptor Type 7 Expression.

## **Darmkrebs**

**KK-Studie 1:** <https://www.ncbi.nlm.nih.gov/pubmed/30534177>

Curcumin Downregulates Human GM3 Synthase (hST3Gal V) Gene Expression with Autophagy Induction in Human Colon Carcinoma HCT116 Cells

## **Glioblastom - Hirntumor**

**KK-Studie 1:** <https://www.ncbi.nlm.nih.gov/pubmed/29346317>

Liposomal TriCurin, A Synergistic Combination of Curcumin, Epicatechin Gallate and Resveratrol, Repolarizes Tumor-Associated Microglia/Macrophages, and Eliminates Glioblastoma (GBM) and GBM Stem Cells

## **Kleinhirntumore – Medulloblastoma**

**KK-Studie 1:** <https://www.ncbi.nlm.nih.gov/pubmed/22280307>

Anaphase-promoting complex/cyclosome protein Cdc27 is a target for curcumin-induced cell cycle arrest and apoptosis

## **Leberkrebs**

**KK-Studie 1:** <https://www.ncbi.nlm.nih.gov/pubmed/30534696>

Combination of curcuma zedoary and kelp inhibits growth and metastasis of liver cancer in vivo and in vitro via reducing endogenous H2S levels

## **Lungenkrebs**

**KK-Studie 1:** <http://www.ncbi.nlm.nih.gov/pubmed/27049834>

Anti-cancer effects of curcumin on lung cancer through the inhibition of EZH2 and NOTCH1

**KK-Studie 2:** <http://www.ncbi.nlm.nih.gov/pubmed/26656720>

Curcumin Inhibits Non-Small Cell Lung Cancer Cells Metastasis through the Adiponectin/NF- $\kappa$ B/MMPs Signaling Pathway

**KK-Studie 3:** <http://www.ncbi.nlm.nih.gov/pubmed/26547533>

Enhanced oral bioavailability and anticancer activity of novel curcumin loaded mixed micelles in human lung cancer cells

**KK-Studie 4:** <http://www.ncbi.nlm.nih.gov/pubmed/27026405>

Curcumin downregulates p38 MAPK-dependent X-ray repair cross-complement group 1 (XRCC1) expression to enhance cisplatin-induced cytotoxicity in human lung cancer cells.

## **Prostatakrebs**

**KK-Studie 1:** <https://www.ncbi.nlm.nih.gov/pubmed/29202102>

Combinatorial treatment with natural compounds in prostate cancer inhibits prostate tumor growth and leads to key modulations of cancer cell metabolism

**KK-Studie 2:** <https://www.ncbi.nlm.nih.gov/pubmed/26546056>

Curcumin analog WZ35 induced cell death via ROS-dependent ER stress and G2/M cell cycle arrest in human prostate cancer cells

**KK-Studie 3:** <https://www.ncbi.nlm.nih.gov/pubmed/23042094>

Curcumin inhibits prostate cancer metastasis in vivo by targeting the inflammatory cytokines CXCL1 and -2

## **Speierhrenkrebs**

**KK-Studie 1:** <https://www.ncbi.nlm.nih.gov/pubmed/30737573>

Combination treatment with highly bioavailable curcumin and NQO1 inhibitor exhibits potent antitumor effects on esophageal squamous cell carcinoma