Cancer-Glioblastoma

HittPack™

A search of the latest news and medical research findings

October 7, 2011
# Contents

I.  Disease and Treatment Information in GBM ................................................................. 2

II. Recent News Articles in GBM ......................................................................................... 2
    Medscape Medical News (free password required)......................................................... 2
    MedpageToday .............................................................................................................. 3
    Reuters Health ............................................................................................................. 3

III. Press Releases in GBM .................................................................................................. 4
    Eurekalert.org .............................................................................................................. 4
    Newswise.com ........................................................................................................... 9
    Google.com .............................................................................................................. 14

IV. US Food and Drug Administration Info on GBM .......................................................... 16
    Drugs@FDA Database ............................................................................................... 16
    2011 Advisory Committee Meetings ........................................................................... 18

V. Guidelines in GBM .......................................................................................................... 18
    National Guidelines Clearinghouse--Guidelines.gov ................................................... 18
    National Comprehensive Cancer Network .................................................................... 19
    American Association of Neurological Surgeons / Congress of Neurological Surgeons ........................................................................................................... 20
    European Society of Medical Oncology ...................................................................... 20

VI. Conferences and Medical Associations for GBM ......................................................... 20
    Conferences .............................................................................................................. 20
    Medical Associations ............................................................................................... 21

VII. Key Opinion Leaders in GBM .................................................................................... 21

VIII. Clinical Trials in Progress in GBM ............................................................................ 22

IX. PubMed Search in GBM ............................................................................................... 40
    Randomized Controlled Trials .................................................................................... 40
    Reviews ....................................................................................................................... 41
    Editorials ..................................................................................................................... 49
I. Disease and Treatment Information in GBM

- **National Cancer Institute** - General information about glioblastoma (GBM)

- **American Cancer Society** - Detailed guide on brain and spinal cord tumors, including GBM, in adults

- **American Society of Clinical Oncology** - Brain tumors: Oncologist-approved cancer information from the American Society of Clinical Oncology
  [http://www.cancer.net/patient/Cancer+Types/Brain+Tumor?sectionTitle=Overview](http://www.cancer.net/patient/Cancer+Types/Brain+Tumor?sectionTitle=Overview)

- **emedicine.medscape.com** - Glioblastoma

- **Massachusetts General Hospital Brain Tumor Center** - Glioblastoma guide for patients
  [http://brain.mgh.harvard.edu/glioblastoma.htm](http://brain.mgh.harvard.edu/glioblastoma.htm)

- **International RadioSurgery Association (IRSA)** - Glioblastoma information
  [http://www.irsa.org/glioblastoma.html](http://www.irsa.org/glioblastoma.html)

- **Cancercare.org** - Cancer resource. Treatment update on brain tumors: glioblastoma

- **American Brain Tumor Association** - GBM and Anaplastic Astrocytomas.
  [http://www.abta.org/tumor_treatment/81-2](http://www.abta.org/tumor_treatment/81-2)

II. Recent News Articles in GBM

**Medscape Medical News (free password required)**


- **Blocking Cholesterol Uptake to Treat Glioblastoma** Blocking the uptake of large amounts of cholesterol into glioblastoma cells could be a new therapeutic strategy for this deadly brain cancer. News, Medscape Medical News, September 2011

- **Temozolomide Helps Poorly Functioning Elderly With Glioblastoma**... function and quality of life in severely impaired older patients newly diagnosed with glioblastoma, according to the results of a new phase II trial. News, Reuters Health Information, July 2011
- **Adding Temozolomide to Bevacizumab for Glioblastoma Disappoints**... of temozolomide and bevacizumab showed some activity against recurrent glioblastoma in a phase II trial, but less than what's been reported for... News, Reuters Health Information, August 2011

- **Valproic Acid May Extend Life in Glioblastoma**... valproic acid may improve survival among patients with newly diagnosed glioblastoma receiving temozolomide radiochemotherapy vs other such drugs or no... News, Medscape Medical News, September 2011

- **Two Genetic Mutations Tied to Oligodendroglialomas**... somatic mutations per tumor. This is similar to the number found in glioblastomas (35.6), the most common type of adult brain tumor. There were a... News, Medscape Medical News, August 2011

---

**MedpageToday**

http://www.medpagetoday.com; search term = glioblastoma; all results for the past 3 months.

**Anti-Seizure Drug May Boost Glioblastoma Survival**

8/31/2011

Patients undergoing chemoradiotherapy for malignant glioblastoma seemed to have improved overall survival if they also received an anti-seizure medication, a retrospective analysis found.

---

**Reuters Health**

www.reuters.com; search term = glioblastoma; all results for the past 4 months.

**Apogenix Successfully Completes Patient Recruitment for**

Apogenix / Apogenix Successfully Completes Patient Recruitment for Glioblastoma Phase II Trial with APG101. Processed and transmitted by Thomson Reuters ONE. ...

Tue Sep 20, 2011 3:30am EDT

---

**RPT-CHRONOLOGY-Key dates for Roche cancer drug Avastin**

... Agency requires two follow-up studies to confirm effectiveness. May 2009: Avastin wins US approval for glioblastoma, an aggressive form of brain cancer. ...

Mon Jun 27, 2011 8:00am EDT
**CHRONOLOGY-Key dates for Roche cancer drug Avastin**

... Agency requires two follow-up studies to confirm effectiveness. May 2009: Avastin wins US approval for glioblastoma, an aggressive form of brain cancer. ...

Sun Jun 26, 2011 12:16pm EDT

**Chronology: Key dates for Roche cancer drug Avastin**

... Agency requires two follow-up studies to confirm effectiveness. May 2009: Avastin wins US approval for glioblastoma, an aggressive form of brain cancer. ...

Sun Jun 26, 2011 12:18pm EDT

**MDxHealth’s MGMT Test Identifies Brain Cancer Patients Likely to ...**

... treatment, today announced that its MGMT test (PredictMDxTM for Brain) was shown to successfully identify those recently diagnosed glioblastoma patients more ...

Mon Jun 6, 2011 2:00am EDT

### III. Press Releases in GBM

**Eurekalert.org**


**Targeting cholesterol may help slow glioblastoma**

... Targeting cholesterol may help slow glioblastoma ...

PHILADELPHIA — **Glioblastoma** is among the most lethal ... mechanism that suggests patients with **glioblastoma** could be treated with cholesterol ...

Find Similar

Highlight
Targeting cholesterol to fight deadly brain cancers

... a new strategy to battle glioblastoma, one of the most deadly... shows that EGFRvIII, common in glioblastoma, promotes the import of cholesterol... strong anti-tumor activity against glioblastoma. They showed that a drug...


Starving cancer cells of cholesterol might offer a new way to treat brain tumors

... a new strategy for treating glioblastoma, the most common and deadly... leads to the death of glioblastoma cells in an animal model... novel therapeutic strategy to treat glioblastoma," says first author and researcher...


Immunogene therapy combined with standard treatment is safe for patients with brain tumors

... removing brain tumors such as glioblastoma multiforme, the most common and... in patients with newly diagnosed glioblastoma," says first author Dr. E... 13,000 of them yearly. Glioblastoma multiforme is the most common...


Indirubin -- Component Of Chinese herbal remedy might block brain tumor's spread

... both blocks the migration of glioblastoma cells, preventing their spread to... 13,000 of them yearly. Glioblastoma multiforme is the most common... pretty good methods to stop glioblastoma from growing in the human...

To combat deadly brain cancer, target the stem cells
... target that could stop the growth of glioblastoma, a deadly form of brain cancer. In ... and medical therapies, those diagnosed with a glioblastoma have a median survival of just over ...

What causes brain cancer?
... Understanding glioblastoma at the genetic, molecular level ...
Glioblastoma is the most common and ... underlying mechanism of carcinogenesis in glioblastoma and ultimately lead to treatments ...

Latest data from Cedars-Sinai vaccine study supports immune targeting of brain tumors
... in patients with newly diagnosed glioblastoma multiforme ...
Patients with newly diagnosed glioblastoma multiforme, the most common and ... targets six antigens found on glioblastoma cells, three of which also ...

New glioblastoma cancer vaccine shows promise in phase 2 trial
... New glioblastoma cancer vaccine shows promise in ... survival for people with recurrent glioblastoma – a deadly type of brain ...
... involved 33 patients with recurrent glioblastoma treated at UCSF's Helen ...
**ASCO: Glioblastoma in the 21st century: Wealthier patients living longer than poorer ...**

... ASCO: Glioblastoma in the 21st century: Wealthier ... those younger than 70 with glioblastoma, the most common and aggressive ... survival analysis of newly diagnosed glioblastoma patients (from 2000 to 2007 ... http://www.eurekalert.org/pub_releases/2011-06/tju-agi060211.php- 9.4KB - Public Press Releases

**Gene change identifies brain cancer patients that respond better to treatment**

... or less-aggressive form of glioblastoma, the most common and an ... in tumors removed from 833 glioblastoma patients. It showed that when ... can predict clinical outcomes in glioblastoma patients who have been treated ... http://www.eurekalert.org/pub_releases/2011-05/osum-gci053111.php- 8.7KB - Public Press Releases

**RTOG to announce results of international Phase III clinical trial for newly diagnosed ..**

... for patients with newly diagnosed glioblastoma demonstrating the importance and feasibility ... in Patients with Newly Diagnosed Glioblastoma, no significant improvement in overall ... patients newly diagnosed with a glioblastoma, the study results confirmed the ... http://www.eurekalert.org/pub_releases/2011-05/acor-rta051811.php- 13.6KB - Public Press Releases

**Exploiting the stress response to detonate mitochondria in cancer cells**

... in both mouse models of glioblastoma and human glioblastoma cells. Glioblastomas are the most ... currently no effective treatment for glioblastoma, and patients rarely survive more ... TRAIL alone did not affect glioblastoma in cell and animal models ...

FDA approves the NovoTTF-100A system for the treatment of patients with recurrent glioblastoma multiforme (GBM) brain tumors as treatment of adult patients with glioblastoma multiforme (GBM) brain tumors, following for patients and physicians battling glioblastoma. " ...

University of Cincinnati team to track tumor DNA through bloodstream
... Medical scientists know this about glioblastoma multiforme: the malignant brain tumor ... unravel the multiple identities of glioblastoma, a team of University of ... researchers has begun sequencing individual glioblastoma genomes and tracking abnormalities through ...

Personized dendritic cell vaccine increases survival in patients with deadly brain cancer
... form of brain cancer called glioblastoma, an early phase study at ... form of brain cancer called glioblastoma, an early phase study at ... those with a subtype of glioblastoma known as mesenchymal, which accounts ...

Key mutations act cooperatively to fuel aggressive brain tumor
... suppressing tumors cooperate to launch glioblastoma, an aggressive brain tumor that ... that in mouse models of glioblastoma, tumors develop in several regions ... on previous studies that linked glioblastoma to disruptions in the RB1 ...
http://www.eurekalert.org/pub_releases/2011-03/sjcr-
Conversion of brain tumor cells into blood vessels thwarts treatment efforts

... IMAGE: Glioblastoma tumor cells (shown in green ... LA JOLLA, CA--Glioblastoma, the most common and lethal ... a life-threatening oxygen shortage, glioblastoma cells can shift gears and ...


Loss of gene promotes brain-tumor development, reduces survival, study finds

... NFKBIA promotes the growth of glioblastoma multiforme, the most common and ... may improve survival for certain glioblastoma patients. ... survival in certain patients with glioblastoma," says senior coauthor Dr. Arnab ...


Most common adult brain cancer linked to gene deletion, Stanford doctors say

... of every four cases of glioblastoma, the most common adult brain ... Glioblastoma is the most malignant type ... as a contributing cause of glioblastoma. ...


Newswise.com

www.newswise.com; search term = glioblastoma, sorted by date. Results 1 through 20 of 265

Targeting Cholesterol May Help Slow Glioblastoma

American Association for Cancer Research (AACR)
2011-09-13

1) These lethal brain cancers depend on cholesterol for growth. 2) Laboratory findings identified a tumor survival pathway. 3) Glioblastoma is one of the most untreatable cancers.

Targeting Cholesterol to Fight Deadly Brain Cancers

University of California, Los Angeles (UCLA), Health Sciences

2011-09-14

Blocking the uptake of large amounts of cholesterol into brain cancer cells could provide a new strategy to battle glioblastoma, one of the most deadly malignancies, researchers at UCLA’s Jonsson Comprehensive Cancer Center have found.

Metabolic State of Brain Cancer Stem Cells Significantly Different than the Cancer Cells They Create

University of California, Los Angeles (UCLA), Health Sciences

2011-09-06

The metabolic state of glioma stem cells, which give rise to deadly glioblastomas, is significantly different from that of the brain cancer cells to which they give birth, a factor which helps those stem cells avoid treatment and cause recurrence later.

Choice of Seizure Drug for Brain Tumor Patients May Affect Survival

American Academy of Neurology (AAN)

2011-08-23

New research suggests brain tumor patients who take the seizure drug valproic acid on top of standard treatment may live longer than people who take other kinds of epilepsy medications to control seizures. The research is published in the August 31, 2011, online issue of Neurology®, the medical journal of the American Academy of Neurology.

Christiana Care Health System and The Wistar Institute Form Cancer Research Partnership

Wistar Institute

2011-08-19

The Wistar Institute and Christiana Care Health System’s Helen F. Graham Cancer Center have entered into an historic partnership to collaborate on translational cancer research with the aim of bringing the latest discoveries in cancer research to cancer patients in the community.

Researchers Develop and Test New Molecule as a Delivery Vehicle to Image and Kill Brain Tumors
Virginia Commonwealth University

2011-08-03

A single compound with dual function – the ability to deliver a diagnostic and therapeutic agent – may one day be used to enhance the diagnosis, imaging and treatment of brain tumors, according to findings from Virginia Commonwealth University and Virginia Tech.

Hyperbaric Oxygen Tested for Aggressive Brain Cancer

Neurological Surgery, P.C.

2011-07-22

In a unique Phase II study, researchers are testing hyperbaric oxygen therapy as an addition to the standard of care for patients with glioblastoma. The study is being conducted at The Long Island Brain Tumor Center at Neurological Surgery, P.C. and at Winthrop University Hospital.

Turn Off: Pathway Activation Discovery Could Lead to New Cancer Drugs

University of Alabama at Birmingham

2011-07-07

A discovery by University of Alabama at Birmingham researchers about a how a common cell pathway that helps regulate cell survival and production is turned on could lead to new treatments for autoimmune diseases and cancer.

Just Add Water and ... Treat Brain Cancer

Johns Hopkins Medicine

2011-07-06

Researchers at the Johns Hopkins University School of Medicine have developed a technique that delivers gene therapy into human brain cancer cells using nanoparticles that can be freeze-dried and stored for up to three months prior to use. The shelf-stable particles may obviate the need for virus-mediated gene therapy, which has been associated with safety concerns. The report appears in the August issue of Biomaterials.

Telomeres: Two Genes Linked to Why They Stretch in Cancer Cells

Johns Hopkins Medicine

2011-06-29
Scientists at Johns Hopkins have provided more clues to one of the least understood phenomena in some cancers: why the “ends caps” of cellular DNA, called telomeres, lengthen instead of shorten.

**Vaccine Study Supports Immune Targeting of Brain Tumors**

**Cedars-Sinai Medical Center**

2011-06-16

An experimental vaccine developed by researchers at Cedars-Sinai Medical Center’s Maxine Dunitz Neurosurgical Institute targets overactive antigens in highly aggressive brain tumors and improves length of survival in newly diagnosed patients, according to new data that was presented in a poster session at the 47th Annual Meeting of the American Society of Clinical Oncology.

**RTOG to Announce Initial Results of an International Phase III Clinical Trial for Newly Diagnosed Brain Tumors**

**American College of Radiology (ACR)**

2011-05-18

In the randomized trial, RTOG 0525 Phase III Trial Comparing Conventional Adjuvant Temozolomide with Dose-Intensive Temozolomide in Patients with Newly Diagnosed Glioblastoma, no significant improvement in overall patient survival or disease progression was observed for patients who received the dose-intensive (dose-dense) TMZ plus radiotherapy as compared to patients who received standard-dose TMZ plus radiotherapy. The trial did however prove the feasibility of collecting and analyzing tumor tissue prospectively in a multi-center setting.

**Scientists Discover Way to Amp Up the Power of Killer T Cells**

**University of California, Los Angeles (UCLA), Health Sciences**

2011-05-09

Researchers with UCLA’s Jonsson Comprehensive Cancer Center have discovered a way to amp up the power of killer T-cells, called CD8 cells, making them more functional for longer periods of time and boosting their ability to multiply and expand within the body to fight melanoma, a new study has found.

**Minimizing Side Effects from Chemoradiation Could Help Brain Cancer Patients Live Longer**

**Thomas Jefferson University**

2011-04-19
Findings published in the British Journal of Cancer show that damage to surrounding tissue may play role in determining high-grade glioma patients’ long-term outcome.

**Novel Vaccine Therapy Shows Promise for Extending Survival Time in Patients with Deadly Glioblastoma**

**American Association of Neurological Surgeons (AANS)**

2011-04-01

Glioblastoma, or malignant glioma, is the most common malignant brain tumor, and also the most deadly, because it is very resistant to treatment. In general, current treatments have not yielded significant increases in survival rates, which is why research into novel therapies is so crucial. A novel brain tumor vaccine clinical trial study conducted at UCLA demonstrates a longer survival time in patients with glioblastoma.

**Scientists Find Potential Benefit of Hypericin for Recurrent Brain Tumors**

**University of Utah Health Sciences**

2011-04-11

Researchers have found that a synthetic version of hypericin, a compound naturally found in St. John’s wort, may be a promising treatment for patients with recurrent malignant brain tumors. Their findings were published online on March 31, 2011 in the journal Cancer.

**NYU Cancer Institute Experts Present at the American Association for Cancer Research 102nd Annual Meeting 2011**

**New York University Langone Medical Center**

2011-04-01

Experts from The Cancer Institute at NYU Langone Medical Center presented new research findings at the American Association for Cancer Research 102nd Annual Meeting 2011 held April 2-6, 2011 in Orlando, Florida. NYU Cancer Institute researchers discussed various breakthroughs such as a novel test for early-stage asbestos-related pulmonary cancer, a promising treatment strategy for glioblastomas, genome-wide mapping of nickel-related cancer and greater understanding of melanoma and bladder cancer.

**Early Cancer Treatment Successes Lead to CAREER Award for Rafael Davalos**

**Virginia Tech (Virginia Polytechnic Institute and State University)**

2011-04-04
Rafael Davalos of Virginia Tech’s School of Biomedical Engineering describes the use of a method he invented, irreversible electroporation, to successfully treat a seven-year old Labrador retriever with a tumor. The National Science Foundation is now funding additional work in this area.

American Association of Neurological Surgeons Hosts 79th Annual Scientific Meeting in Denver

American Association of Neurological Surgeons (AANS)

2011-04-01

The AANS Annual Scientific Meeting is the largest gathering of neurosurgeons in the nation. The meeting focuses on the latest research and technological advances in the field. The AANS is expected to host an estimated 6,000 attendees at the Colorado Convention Center with more than 3,000 medical registrants. The scientific meeting starts Monday, April 11.

AACR Awards 50 Minority Scholar in Cancer Research Awards

American Association for Cancer Research (AACR)

2011-03-25

The American Association for Cancer Research is awarding 50 Minority Scholar in Cancer Research Awards at the AACR 102nd Annual Meeting 2011, held April 2-6.

Google.com

Search term = “glioblastoma press releases”, within last 90 days, sorted by relevance. First 10 results returned

1. Targeting Cholesterol May Help Slow Glioblastoma

www.aacr.org › Public & Media

Sep 15, 2011 - PHILADELPHIA — Glioblastoma is among the most lethal cancers, but scientists have uncovered a novel growth mechanism that suggests patients with ...

►

2. Nanotechnology Now - Press Release: “Nanoparticles seek and ...

www.nanotech-now.com › Press

Oct 3, 2011 - Home > Press > Nanoparticles seek and destroy glioblastoma in mice: .... Issuers of news releases, not 7th Wave, Inc. or Nanotechnology Now, are solely ...
3. **Emerging Technologies In Brain Cancer Therapy - Seeking Alpha**

seekingalpha.com/.../294604-emerging-technologies-in-brain-cancer...

Sep 19, 2011 - Standard of care therapy for 10000+ diagnosed with glioblastoma multiforme .... website and in the company's press releases regarding the design and the ...

4. **Blocking Cholesterol Fights Glioblastomas - National Cancer Institute**

www.cancer.gov/newscenter/pressreleases/.../ ...

Sep 16, 2011 - Blocking the uptake of large amounts of cholesterol into brain cancer cells could provide a new strategy to battle glioblastoma, one of the most deadly ...

5. **What Causes Brain Cancer? Understanding Glioblastoma ...**

neurosciencenews.com/what-causes-brain-cancer-glioblastoma-geneti...

Jul 6, 2011 - Understanding Glioblastoma. Understanding glioblastoma at the genetic, molecular level ... Source: Inderscience Publishers press release. Share Neuroscience ...

6. **[PDF]**

110920_Abschluss Patientenrekrutierung APG101_english final

www.biorn.org/.../media/110920_Abschluss_Patientenrekrutierung_...

File Format: PDF/Adobe Acrobat - Quick View

Sep 20, 2011 - clinical phase II trial with APG101 for the treatment of glioblastoma, which started in December 2009. ... or second relapse/progression of Glioblastoma Multiforme ( GBM, brain tumor) were included in ... Press Release. Pre ss R e le a se. 2. 0 ...

7. **Apogenix Successfully Completes Patient Recruitment for ...**

www.reuters.com/article/.../idUS64677+20-Sep-2011+HUG2011092...

Sep 20, 2011 - Reuters is not responsible for the content in this press release. ... Successfully Completes Patient Recruitment for Glioblastoma Phase II Trial with APG101 . ...

8. **[PDF]**

NWBT ANNOUNCES FURTHER EXPANSION OF CLINICAL SITES ...

Aug 4, 2011 - Statements made in this news release that are not historical facts, including statements concerning future treatment of patients with GBM using DCVax o ... 

9. BIOMAR HAS OBTAINED GOOD RESULTS - Free Press Release


Sep 27, 2011 - Latest announcement from Biomar Microbial Technologies, Spain, Spanish State. BIOMAR MICROBIAL TECHNOLOGIES IS INTERESTED IN FINDING ...

10. ImmunoCellular Therapeutics Announces 55% Overall Survival at ...

www.tradershuddle.com/.../Press-Releases/ImmunoCellular-Therapeu...

Sep 12, 2011 - This press release contains certain forward-looking statements that are subject to a number of risks and uncertainties, including without limitation the need for ...

---

IV. US Food and Drug Administration Info on GBM

### Drugs@FDA Database

**Original New Drug Approvals (NDAs and BLAs) by Month; last 3 months listed**


**October 2011**

<table>
<thead>
<tr>
<th>Drug Name and FDA Appl. #</th>
<th>Active Ingredients</th>
<th>NDA Chem. Type *</th>
<th>Review Classification **</th>
<th>Company</th>
<th>Approval Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Your selected month did not return any results.

**September 2011**

<table>
<thead>
<tr>
<th>Drug Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>FDA Appl. #</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>PUR-WASH (NDA # 022305)</td>
</tr>
<tr>
<td>LAMIVUDINE; TENOFOVIR DISOPROXIL FUMARATE; NEVIRAPINE (NDA # 202171)</td>
</tr>
<tr>
<td>LAMIVUDINE; ZIDOVUDINE (NDA # 201151)</td>
</tr>
</tbody>
</table>

**August 2011**

<table>
<thead>
<tr>
<th>FDA Appl. #</th>
<th>Active Ingredients</th>
<th>NDA Chem. Type *</th>
<th>Review Classification **</th>
<th>Company</th>
<th>Approval Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEMCITABINE (NDA # 200795)</td>
<td>GEMCITABINE HYDROCHLORIDE</td>
<td>3</td>
<td>S</td>
<td>HOSPIRA INC</td>
<td>08/04/2011</td>
</tr>
<tr>
<td>ROSUVASTATIN ZINC (NDA # 202172)</td>
<td>ROSUVASTATIN ZINC</td>
<td>2</td>
<td>S</td>
<td>WATSON LABS INC</td>
<td>08/04/2011</td>
</tr>
<tr>
<td>COMPLERA (NDA # 202123)</td>
<td>EMTRICITABINE; RILPIVIRINE; TENOFOVIR DISOPROXIL FUMARATE</td>
<td>4</td>
<td>P</td>
<td>GILEAD SCIENCES INC</td>
<td>08/10/2011</td>
</tr>
<tr>
<td>ZELBORAF (NDA # 202429)</td>
<td>VEMURAFENIB</td>
<td>1</td>
<td>P</td>
<td>HOFFMAN N LA ROCHE</td>
<td>08/17/2011</td>
</tr>
<tr>
<td>ADCETRIS (BLA # 125388)</td>
<td>BRENTUXIMAB VEDOTIN</td>
<td></td>
<td></td>
<td>SEATTLE GENETICS</td>
<td>08/19/2011</td>
</tr>
</tbody>
</table>
**V. Guidelines in GBM**

**National Guidelines Clearinghouse--Guidelines.gov**

[www.guidelines.gov](http://www.guidelines.gov); Search criteria = “GBM” all years, sorted by relevance, all 8 listed

   
   2006 Aug 15. NGC:005649
2. **Leptomeningeal metastases**, 2006 Jan. NGC:006064
   Association of Comprehensive Cancer Centres - Disease Specific Society. View all guidelines by the developer(s)

   National Institute for Health and Clinical Excellence (NICE) - National Government Agency [Non-U.S.]. View all guidelines by the developer(s)

   European Association of Urology - Medical Specialty Society. View all guidelines by the developer(s)

   Association of Comprehensive Cancer Centres - Disease Specific Society. View all guidelines by the developer(s)

   Program in Evidence-based Care - State/Local Government Agency [Non-U.S.]. View all guidelines by the developer(s)

   Program in Evidence-based Care - State/Local Government Agency [Non-U.S.]. View all guidelines by the developer(s)

   Program in Evidence-based Care - State/Local Government Agency [Non-U.S.]. View all guidelines by the developer(s)

**National Comprehensive Cancer Network**

Free password required
www.nccn.org

NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines™) in Central Nervous System Cancers


American Association of Neurological Surgeons / Congress of Neurological Surgeons

www.aans.org / www.cns.org

Treatment guidelines for the management of patients with newly diagnosed GBM by the Joint Tumor Section of the American Association of Neurological Surgeons and Congress of Neurological Surgeons.


http://www.springerlink.com/content/j37041413603ll63/

European Society of Medical Oncology

www.esmo.org

Annals of Oncology: ESMO Clinical Practice Guidelines

High-grade malignant glioma: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up

Vol 21 suppl 5 May 2010

http://annonc.oxfordjournals.org/content/21/suppl_5/v190.full

VI. Conferences and Medical Associations for GBM

Conferences

- American Association for Cancer Research (AACR) Annual Meeting
  http://www.aacr.org/home/scientists/meetings--workshops/aacr-annual-meeting-2012.aspx
- American Society of Clinical Oncology (ASCO) annual meeting http://chicago2012.asco.org/
- American Association of Neurological Surgeons 80th Annual meeting
  http://aans.org/Education%20and%20Meetings/Annual%20Meetings.aspx
- Annual European Society of Medical Oncology (ESMO) Congress
  http://www.esmo.org/events/vienna-2012-congress.html
- 10th Meeting of the European Association of NeuroOncology
European Organisation for Research and Treatment of Cancer (EORTC) 50th Anniversary Conference [http://www.eortc.be/]

Medical Associations

- American Association for Cancer Research (AACR)
- American Cancer Society (ACS)
- American Institute for Cancer Research (AICR)
- American Association of Neurological Surgeons (AANS)
- American Society of Clinical Oncology (ASCO)
- American Brain Tumor Association (ABTA)
- Congress of Neurological Surgeons (CNS)
- Society for Neuroscience (SFN)
- European Organisation for Research and Treatment of Cancer (EORTC)

VII. Key Opinion Leaders in GBM

A listing of key opinion leaders (KOLs) in GBM who have participated in recent CME activities available online. Where possible, the sponsor information has been listed.

- **Timothy Cloughesy, MD**, Professor and Director, Department of Neurology, Neuro-Oncology Program, Jonsson Comprehensive Cancer Center, David Geffen School of Medicine at UCLA, Los Angeles, California.

- **Tracy Batchelor, MD, MPH**, Executive Director, Stephen E. and Catherine Pappas Center for Neuro-Oncology, Massachusetts General Hospital, Associate Professor of Neurology, Harvard Medical School, Boston, Massachusetts. Consulting Fees: Ark Therapeutics, Agios, Genzyme, Novartis, Imclone/Lilly; Contract Research: Boehringer Ingelheim, Amgen, Astra Zeneca, Esai, Exelixis, Genentech, Merck, Novartis.

- **Patrick Y. Wen, MD**, Director, Center for Neuro-Oncology, Dana-Farber Cancer Institute, Director, Division of Neuro-Oncology, Department of Neurology, Brigham and Women’s Hospital, Professor of Neurology, Harvard Medical School, Boston, Massachusetts. Consulting Fees: Ark Therapeutics, Agios, Genzyme, Novartis, Imclone/Lilly; Contract Research: Boehringer Ingelheim, Amgen, Astra Zeneca, Esai, Exelixis, Genentech, Merck, Novartis.

- **Marc C. Chamberlain, MD**, Professor of Neurology, University of Washington, Department of Neurology and Neurological Surgery, Fred Hutchinson Cancer Research Center, Seattle Cancer Care Alliance, Seattle, Washington. Consulting Fees: Genentech, Roche, Exelixis; Fees for Non-CME Services Received Directly From Commercial Interest or Their Agents: Genentech, Roche, Exelixis.

- **David A. Reardon, MD**, Associate Professor, Departments of Surgery and Pediatrics, Associate Deputy Director, The Preston Robert Tisch Brain Tumor Center, Duke University Medical Center, Durham, North Carolina. Consulting Fees: EMD Serono, Merck, Schering, Genentech, Roche.
VIII. Clinical Trials in Progress in GBM

Clinical trials.gov

Search criteria- glioblastoma | Open Studies | Exclude Unknown | Phase II, III, IV

100 of 121 studies listed

1  Evaluation of [18F]-FMISO for Non Operated Glioblastoma

Condition: Glioblastoma

Intervention: Procedure: [18F]-FMISO PET-CT

2  A Study of PD 0332991 in Patients With Recurrent Rb Positive Glioblastoma

Conditions: Glioblastoma; Gliosarcoma; Anaplastic Astrocytoma

Intervention: Drug: PD 0332991

3  Amgen 386 for Recurrent Glioblastoma
Condition: Glioblastoma Multiforme

Interventions: Drug: Amgen 386; Drug: Bevacizumab

4 Bevacizumab and Temozolomide in Treating Older Patients With Newly-Diagnosed Glioblastoma Multiforme or Gliosarcoma

Conditions: Giant Cell Glioblastoma; Glioblastoma; Gliosarcoma

Interventions: Biological: bevacizumab; Drug: temozolomide; Other: laborator: immunohistochemistry staining method; Genetic: microarray analysis; Genetic: DNA methylation analysis

5 A Comparison of FDG-PET Versus MRI Based Target Volume Delineation in Glioblastoma and the Role of FDG-PET/CT in the Alteration of MRI Based Target Volumes.

Condition: Glioblastoma

Intervention: Procedure: FDG-PET

6 Prolonged Adjuvant Temozolomide vs "Stop & Go" in Glioblastoma Patients

Condition: Glioblastoma

Intervention: Drug: Temozolomide

7 A Study of MEDI-575 in Subjects With Recurrent Glioblastoma Multiforme

Condition: Glioblastoma Multiforme

Intervention: Drug: MEDI-575

8 A Study of Intraventricular Liposomal Encapsulated Ara-C (DepoCyt) in Patients With Recurrent Glioblastoma

Conditions: Glioblastoma Multiforme; Glioma; Astrocytoma; Brain Tumor

Intervention: Drug: Intrathecal liposomal Ara-C + Temozolomide

9 PI/II of Temozolomide & Hypofractionated Radiotherapy in Tx of Supratentorial Glioblastoma
**Multiform**

Conditions: Glioblastoma; Cancer of Brain and Nervous System; Glioma

Interventions: Drug: Temozolomide; Procedure: Stereotactic Radiosurgery

10 **A Phase 2 Study of PLX3397 in Patients With Recurrent Glioblastoma**

Condition: Recurrent Glioblastoma

Intervention: Drug: PLX3397

11 **Radiosurgery Plus Bevacizumab in Glioblastoma**

Conditions: Glioblastoma; Gliosarcoma; Brain Tumor

Interventions: Radiation: radiosurgery; Biological: bevacizumab; Drug: irinotecan

12 **Standard Dose Bevacizumab Versus Low Dose Bevacizumab Plus Lomustine (CCNU) for Recurrent Glioblastoma Multiforme (GBM)**

Conditions: Brain Cancer; Glioblastoma

Interventions: Drug: Standard Dose Bevacizumab; Drug: Low Dose Bevacizumab

13 **Vorinostat, Isotretinoin and Temozolomide in Adults With Recurrent Glioblastoma Multiforme (GBM)**

Conditions: Glioblastoma Multiforme; Anaplastic Glioma

Interventions: Drug: Vorinostat; Drug: Isotretinoin; Procedure: Surgical Resection

14 **Bevacizumab With or Without Surgery for Adult Glioblastomas**

Conditions: Glioblastoma; Brain Neoplasm

Intervention: Procedure: Craniotomy

15 **Clinical Trial to Assess the Efficacy and Safety of 'INNOCELL Immuncell-LC' With Temozolomide in**
**Newly Diagnosed Glioblastoma of Korea**

**Condition:** Glioblastoma  
**Intervention:** Drug: Activated T lymphocyte (Immuncell-LC)

16 **Bi-weekly Temozolomide Plus Bevacizumab for Adult Patients With Recurrent Glioblastoma Multiforme**

**Conditions:** Recurrent Glioblastoma Multiforme; Recurrent Gliosarcoma  
**Intervention:** Drug: temozolomide and bevacizumab

17 **Parvovirus H-1 (ParvOryx) in Patients With Progressive Primary or Recurrent Glioblastoma Multiforme.**

**Condition:** Glioblastoma Multiforme  
**Intervention:** Drug: H-1PV

18 **Hyperbaric Hyperoxygenation With Radiotherapy and Temozolomide in Adults With Newly Diagnosed Glioblastoma**

**Conditions:** Glioblastomas; Gliosarcoma  
**Intervention:** Other: Hyperbaric Oxygen Therapy

19 **Comparison of Two Dosing Regimens of Temozolomide in Patients With Progressive or Recurrent Glioblastoma**

**Condition:** Glioblastoma  
**Interventions:** Drug: Temozolomide in both arms; Drug: Temozolomide in both

20 **Neo-adjuvant Treatment With Temozolomide and Bevacizumab Previous to Temozolomide Plus Radiation Plus Bevacizumab Therapy in Unresectable Glioblastoma**

**Condition:** Glioblastomas  
**Interventions:** Drug: Temozolomide; Drug: Bevacizumab; Radiation: Standard
21 **Efficacy and Safety of AP 12009 in Patients With Recurrent or Refractory Anaplastic Astrocytoma or Secondary Glioblastoma**

**Conditions:** Anaplastic Astrocytoma; Glioblastoma

**Interventions:** Drug: trabedersen; Drug: temozolomide or carmustine for infusion; Drug delivery system for administration of AP 12009; Procedure: Placement of Drug Delivery System

22 **Carbon Ion Radiotherapy for Primary Glioblastoma**

**Condition:** Primary Glioblastoma

**Interventions:** Radiation: Carbon Ion Radiotherapy; Radiation: Proton Radiotherapy

23 **Verubulin, Radiation Therapy, and Temozolomide to Treat Patients With Newly Diagnosed Glioblastoma Multiforme**

**Condition:** Glioblastoma Multiforme

**Interventions:** Drug: Verubulin; Drug: Temozolomide & Radiation Therapy

24 **Vitamin D for Treatment of Glioblastoma Multiforme**

**Condition:** Glioblastoma Multiforme

**Interventions:** Other: Surgery; Radiation: Radiotherapy to tumour bed and/or residual tumour; Drug: Temozolomide; Drug: Vitamin D3

25 **Oral Tarceva Study for Recurrent/Residual Glioblastoma Multiforme and Anaplastic Astrocytoma**

**Conditions:** Glioblastoma Multiforme; Anaplastic Astrocytoma

**Intervention:** Drug: Erlotinib

26 **A Study of ICT-107 Immunotherapy in Glioblastoma Multiforme (GBM)**

**Condition:** Glioblastoma Multiforme

**Interventions:** Biological: ICT-107; Biological: Placebo DC
27  **PF-00299804 in Adult Patients With Relapsed/Recurrent Glioblastoma**

**Conditions:**  Glioblastoma; GBM; Glioblastoma Multiforme  
**Intervention:**  Drug: PF-00299804

28  **Trial Of Repeated Super-selective Intraarterial Cerebral Infusion Of Bevacizumab (Bevacizumab) For Treatment Of Relapsed/Refractory Glioblastoma Multiforme And Anaplastic Astrocytoma.**

**Conditions:**  Glioblastoma Multiforme; Anaplastic Astrocytoma  
**Intervention:**  Drug: Bevacizumab

29  **Cilengitide, Temozolomide, and Radiation Therapy in Treating Patients With Newly Diagnosed Glioblastoma and Unmethylated Gene Promoter Status**

**Condition:**  Glioblastoma Multiforme  
**Interventions:**  Drug: Cilengitide; Drug: Temozolomide & Radiotherapy

30  **A Phase II Trial of Sutent (Sunitinib; SU011248) for Recurrent Anaplastic Astrocytoma and Glioblastoma**

**Conditions:**  Anaplastic Astrocytoma; Glioblastoma  
**Intervention:**  Drug: Sunitinib Malate

31  **E7050 in Combination With E7080 in Subjects With Advanced Solid Tumors (Dose Escalation) and in Subjects With Recurrent Glioblastoma or Unresectable Stage III or Stage IV Melanoma After Prior Systemic Therapy (Expansion Cohort and Phase 2)**

**Condition:**  Advanced Solid Tumors  
**Interventions:**  Drug: E7050 plus E7080; Drug: E7080

32  **Efficacy and Safety Study of Lomustine/Temozolomide Combination Therapy vs. Standard Therapy for Glioblastoma Patients**

**Condition:**  Glioblastoma  
**Interventions:**  Drug: Temozolomide and lomustine; Drug: Temozolomide
33  **Phase I / II Vorinostat, Erlotinib and Temozolomide for Recurrent Glioblastoma Multiforme (GBM)**

**Conditions:**  
Brain Cancer;  
Glioblastoma Multiforme

**Interventions:**  
Drug: Vorinostat;  
Drug: Erlotinib;  
Drug: Temozolomide

34  **Avastin Plus Radiotherapy in Elderly Patients With Glioblastoma**

**Condition:**  
Glioblastoma

**Interventions:**  
Drug: Bevacizumab;  
Radiation: Radiation therapy

35  **Temozolomide and Radiation Therapy With or Without Bevacizumab in Treating Patients With Newly Diagnosed Glioblastoma**

**Condition:**  
Brain and Central Nervous System Tumors

**Interventions:**  
Biological: bevacizumab;  
Drug: temozolomide;  
Other: placebo

36  **Temozolomide and Radiation Therapy With or Without Cediranib Maleate in Treating Patients With Newly Diagnosed Glioblastoma**

**Condition:**  
Brain and Central Nervous System Tumors

**Interventions:**  
Drug: cediranib maleate;  
Drug: temozolomide;  
Other: placebo;  
3-dimensional conformal radiation therapy;  
Radiation: intensity modulated radiation therapy

37  **Cediranib Maleate With or Without Gefitinib in Treating Patients With Recurrent or Progressive Glioblastoma**

**Condition:**  
Brain and Central Nervous System Tumors

**Interventions:**  
Drug: cediranib maleate;  
Drug: gefitinib;  
Genetic: gene expression analysis;  
Laboratory biomarker analysis

38  **Lymphokine-Activated Killer Cells or Gliadel Wafer in Treating Patients With Newly Diagnosed Glioblastoma Multiforme That Can Be Removed by Surgery**

**Condition:**  
Brain and Central Nervous System Tumors
Interventions: Biological: lymphokine-activated killer cells; Drug: polifeprosan 20 with carmustine implant

39 Radiation Therapy With or Without Temozolomide in Treating Older Patients With Newly Diagnosed Glioblastoma Multiforme

Condition: Brain and Central Nervous System Tumors

Interventions: Drug: temozolomide; Genetic: DNA methylation analysis; Procedure: quality-of-life assessment; Radiation: Radiation

40 PPX and Concurrent Radiation for Newly Diagnosed Glioblastoma Without MGMT Methylation

Conditions: Glioblastoma Multiforme; Anaplastic Glioma

Interventions: Drug: PPX (CT2103); Drug: Temozolomide

41 Study of Sunitinib Before and During Radiotherapy in Newly Diagnosed Biopsy-only Glioblastoma Patients

Condition: Glioblastoma

Interventions: Drug: Sunitinib; Radiation: Radiation

42 A Study of PX-866 in Patients With Glioblastoma Multiforme at Time of First Relapse or Progression

Condition: Glioblastoma

Intervention: Drug: PX-866

43 Study of a Drug [DCVax®-L] to Treat Newly Diagnosed GBM Brain Cancer

Conditions: Glioblastoma Multiforme; Glioblastoma; GBM; Grade IV Astrocytoma

Intervention: Drug: Dendritic cell immunotherapy

44 Combination of BKM120 and Bevacizumab in Refractory Solid Tumors and Relapsed/Refractory
**Glioblastoma Multiforme**

**Condition:** Glioblastoma Multiforme

**Interventions:** Drug: Bevacizumab; Drug: BKM120

45  **Efficacy & Safety of Autologous Dendritic Cell Vaccination in Glioblastoma Multiforme After Complete Surgical Resection**

**Condition:** Glioblastoma Multiforme

**Intervention:** Biological: autologous dendritic cells

46  **RO4929097 in Treating Patients With Recurrent or Progressive Glioblastoma**

**Condition:** Brain and Central Nervous System Tumors

**Interventions:** Drug: gamma-secretase inhibitor RO4929097; Other: laboratory biomarker analysis; Procedure: adjuvant therapy; Procedure: neoadjuvant therapy; Procedure: conventional surgery

47  **Gliadel, XRT, Temodar, Avastin Followed by Avastin, Temodar for Newly Diagnosed Glioblastoma Multiforme (GBM)**

**Conditions:** Glioblastoma Multiforme; Gliosarcoma; Grade IV Malignant Glioma

**Intervention:** Drug: Gliadel (camustine), Radiation, Avastin (bevacizumab), Temodar (temozolomide)

48  **Study of AR-67 in Adult Patients With Recurrence of Glioblastoma Multiforme (GBM) or Gliosarcoma**

**Conditions:** Glioblastoma Multiforme; GBM; Gliosarcoma

**Intervention:** Drug: AR-67 (7-t-butyldimethylsilyl-10-hydroxy-camptothecin)

49  **Sorafenib and Temsirolimus in Treating Patients With Recurrent Glioblastoma**

**Condition:** Brain and Central Nervous System Tumors
Interventions: Drug: sorafenib tosylate; Drug: temsirolimus

50 **BIBF 1120 in Recurrent Glioblastoma Multiforme**

Condition: Recurrent Glioblastoma

Intervention: Drug: BIBF1120

51 **A Study of Bevacizumab and Extended Treatment of Temozolomide in Patients With Recurrent Glioblastoma Multiforme**

Condition: Glioblastoma Multiforme

Interventions: Drug: bevacizumab [Avastin]; Drug: temozolomide

52 **Temozolomide and Procarbazine With Cilengitide for Patients With Glioblastoma Multiforme Without Methylation of the MGMT Promoter Gene**

Condition: Newly Diagnosed Non Methylated Glioblastoma Multiforme Grade 4

Intervention: Drug: Cilengitide

53 **Bevacizumab and Lomustine in Treating Patients With Glioblastoma Multiforme in First Recurrence**

Conditions: Brain and Central Nervous System Tumors; Cognitive/Function

Interventions: Biological: bevacizumab; Drug: lomustine; Genetic: DNA methylation analysis; Procedure: cognitive assessment; Procedure: quality of life assessment

54 **Everolimus, Temozolomide, and Radiation Therapy in Treating Patients With Newly Diagnosed Glioblastoma**

Condition: Brain and Central Nervous System Tumors

Interventions: Drug: everolimus; Drug: temozolomide; Genetic: fluorescence gene expression analysis; Genetic: nucleic acid sequencing; Genetic: [18F]fluorothymidine; Other: immunohistochemistry staining; Other: laboratory biomarker analysis; Other: liquid chromatography; Other: mass spectrometry
55 **Radiation Therapy and Temsirolimus or Temozolomide in Treating Patients With Newly Diagnosed Glioblastoma**

**Condition:** Brain and Central Nervous System Tumors

**Interventions:** Drug: temozolomide; Drug: temsirolimus; Genetic: DNA methylation analysis; Procedure: adjuvant therapy; Procedure: single photon emission computed tomography; Radiation: 3-dimensional conformal radiation therapy; Radiation: intensity-modulated radiation therapy

56 **Amino-acid PET Versus MRI Guided Re-irradiation in Patients With Recurrent Glioblastoma Multiforme**

**Condition:** Recurrent Glioma (Glioblastoma Multiforme)

**Intervention:** Radiation: Radiation Therapy

57 **Vorinostat, Temozolomide, and Radiation Therapy in Treating Patients With Newly Diagnosed Glioblastoma Multiforme**

**Conditions:** Brain and Central Nervous System Tumors; Cognitive/Functional

**Interventions:** Drug: temozolomide; Drug: vorinostat; Procedure: adjuvant therapy; Procedure: cognitive assessment; Radiation: radiation therapy

58 **Everolimus, Temozolomide, and Radiation Therapy in Treating Patients With Newly Diagnosed Glioblastoma Multiforme**

**Condition:** Brain and Central Nervous System Tumors

**Interventions:** Drug: everolimus; Drug: temozolomide; Radiation: 3-dimensional conformal radiation therapy; Radiation: intensity-modulated radiation therapy

59 **Gliadel Wafer and Fluorescence-Guided Surgery With Aminolevulinic Acid Followed by Radiation Therapy And Temozolomide in Treating Patients With Primary Glioblastoma**
Condition: Brain and Central Nervous System Tumors

Interventions: Drug: aminolevulinic acid; Drug: polifeprosan 20 with carmustine implant; Drug: temozolomide; Genetic: gene expression analysis; Other: laboratory biomarker analysis; Procedure: adjuvant therapy; Radiation: radiation therapy

60 PET Scan Using 18F-Fluoromisonidazole and MRI In Assessing Tumor Hypoxia in Patients With Newly Diagnosed Glioblastoma Multiforme

Condition: Brain and Central Nervous System Tumors

Interventions: Drug: temozolomide; Other: 18F-fluoromisonidazole; Other: tissue oxygen measurement; Procedure: magnetic resonance imaging; Radiation: radiation therapy

61 ABT-888, Radiation Therapy, and Temozolomide in Treating Patients With Newly Diagnosed Glioblastoma Multiforme

Condition: Brain and Central Nervous System Tumors

Interventions: Drug: temozolomide; Drug: veliparib; Genetic: DNA methylation analysis; Genetic: mutation analysis; Genetic: proteomic profiling; Other: high performance liquid chromatography; Other: immunoenzyme technique; Other: laboratory biomarker analysis; Other: mass spectrometry; Other: pharmacogenomic studies; Procedure: adjuvant therapy; Radiation: radiation therapy

62 Ramucirumab or Anti-PDGFR Alpha Monoclonal Antibody IMC-3G3 in Treating Patients With Recurrent Glioblastoma Multiforme

Condition: Brain and Central Nervous System Tumors

Interventions: Biological: anti-PDGFR alpha monoclonal antibody IMC-3G3; Biological: ramucirumab

63 Bortezomib, Temozolomide, and Regional Radiation Therapy in Treating Patients With Newly Diagnosed Glioblastoma Multiforme or Gliosarcoma

Condition: Brain and Central Nervous System Tumors
Interventions: Drug: bortezomib; Drug: temozolomide; Other: laboratory biomarker analysis; Procedure: adjuvant therapy; Radiation: external beam radiation therapy

64 Effect of NovoTTF-100A Together With Temozolomide in Newly Diagnosed Glioblastoma Multiforme (GBM)
Condition: Glioblastoma Multiforme
Interventions: Device: NovoTTF-100A device; Drug: Temozolomide

65 A Study to Evaluate the Efficacy of Bevacizumab Plus Irinotecan in Recurrent Gliomas
Conditions: Glioblastoma; Astrocytoma
Intervention: Drug: Bevacizumab/Irinotecan

66 Single-Arm Open-Label Multicenter Study of VB-111 in Patients With Recurrent Glioblastoma Multiforme
Condition: Relapsed Glioblastoma Multiforme
Intervention: Drug: VB-111

67 Bevacizumab and Erlotinib After Radiation Therapy and Temozolomide in Treating Patients With Newly Diagnosed Glioblastoma Multiforme or Gliosarcoma
Condition: Brain and Central Nervous System Tumors
Interventions: Drug: bevacizumab; Drug: erlotinib hydrochloride

68 Repeated Super-selective Intraarterial Cerebral Infusion Of Bevacizumab Plus Carboplatin For Treatment Of Relapsed/Refractory GBM And Anaplastic Astrocytoma
Conditions: Glioblastoma Multiforme; Anaplastic Astrocytoma
Intervention: Drug: Bevacizumab and Carboplatin

69 Bosutinib in Adult Patients With Recurrent Glioblastoma
Condition: Glioblastoma
Intervention: Drug: bosutinib

70 **A Phase I/II Study of the Photon Radiosurgery System**

**Conditions:** Brain Tumor, Recurrent; Glioblastoma Multiforme

**Intervention:** Procedure: Photon Radiosurgery System (Intrabeam)

71 **Phase II Study of BKM120 for Subjects With Recurrent Glioblastoma**

**Condition:** Glioblastoma

**Interventions:** Drug: BKM120; Procedure: Surgery

72 **Temozolomide, Carmustine, O6-Benzylguanine, Radiation Therapy, and an Autologous Stem Cell Transplant in Treating Patients With Newly Diagnosed Glioblastoma Multiforme or Gliosarcoma**

**Conditions:** Adult Giant Cell Glioblastoma; Adult Glioblastoma; Adult Glio.

**Interventions:** Drug: temozolomide; Drug: carmustine; Radiation: radiation; autologous hematopoietic stem cell transplantation; Drug: O6-benzylguanine; Biological: filgrastim; Procedure: in vitro-treat stem cell transplantation

73 **Bevacizumab Versus Bevacizumab Plus Vorinostat in Adults With Recurrent Glioblastoma**

**Condition:** Brain Cancer

**Interventions:** Drug: Vorinostat; Drug: Bevacizumab

74 **New Castle Disease Virus (NDV) in Glioblastoma Multiforme (GBM), Sarcoma and Neuroblastoma**

**Conditions:** Glioblastoma; Sarcoma; Neuroblastoma

**Intervention:** Biological: New Castle Disease Virus

75 **Hypofractionated Intensity-Modulated Radiation Therapy With Temozolomide and Bevacizumab for Glioblastoma Multiforme**

**Condition:** Glioblastoma Multiforme
Intervention: Radiation: HypofractionatedIntensity-ModulatedRadiationTherapy

76 **A Panobinostat Presurgery**

Condition: Recurrent Glioblastoma

Intervention: Drug: panobinostat

77 **A Study of Avastin (Bevacizumab) and Irinotecan Versus Temozolomide Radiochemistry in Patients With Glioblastoma**

Condition: Glioblastoma Multiforme

Interventions: Drug: bevacizumab [Avastin]; Drug: irinotecan; Drug: temozolomide

78 **Irinotecan Plus Lenalidomide in Adult Patients With Recurrent Glioblastoma Multiforme**

Condition: Malignant Gliomas

Interventions: Drug: Irinotecan; Drug: Lenalidomide

79 **Temozolomide in Treating Patients With Recurrent Glioblastoma Multiforme or Other Malignant Glioma**

Condition: Brain and Central Nervous System Tumors

Interventions: Drug: temozolomide; Genetic: protein expression analysis; Genetic: reverse transcriptase-polymerase chain reaction; Other: immunoenzyme technique; Other: laboratory biomarker analysis

80 **A Study of Aminolevulinic Acid Used to Enhance Visualization and Surgical Removal of Brain Tumors**

Conditions: Malignant Glioma; Glioma; Glioblastoma; Glioblastoma Multiforme

Intervention: Drug: Aminolevulinic Acid

81 **AMG 102 and Avastin for Recurrent Malignant Glioma**
Conditions:  Grade IV Malignant Glioma; Glioblastoma Multiforme; Gliosarcoma

Intervention:  Drug: AMG 102 plus Avastin (bevacizumab)

82  Radiosurgery for Glioblastoma

Condition:  Glioblastoma Multiforme

Intervention:  Procedure: CyberKnife

83  A Study of Avastin (Bevacizumab) in Combination With Temozolomide and Radiotherapy in Patients With Newly Diagnosed Glioblastoma

Condition:  Glioblastoma

Interventions:  Drug: bevacizumab [Avastin]; Drug: Placebo; Drug: temozolomide therapy

84  Study To Test the Safety and Efficacy of TVI-Brain-1 As A Treatment for Recurrent Grade IV Glioma

Conditions:  Grade IV Glioma; Grade IV Astrocytoma; Glioblastoma Multiforme

Intervention:  Biological: Cancer vaccine plus immune adjuvant, plus activated white blood cells

85  Study of Administration of CMV-specific Cytotoxic T Lymphocytes Expressing CAR Targeting HER2 in Patients With GBM

Condition:  Brain Cancer

Intervention:  Drug: HER.CAR CMV-specific CTL

86  A Study of a Retroviral Replicating Vector Administered to Subjects With Recurrent Malignant Glioma

Conditions:  Glioblastoma; Anaplastic Astrocytoma; Anaplastic Oligodendroglioma; Oligoastrocytoma

Interventions:  Biological: Toca 511; Drug: 5-FC
87  **Sunitinib to Treat Recurrent Brain Cancer**

  **Conditions:**  Glioblastoma Multiforme; Malignant Gliomas; Anaplastic Gliomas
  **Intervention:**  Drug: Sutent (sunitinib)

88  **Dendritic Cell Cancer Vaccine for High-grade Glioma**

  **Condition:**  Glioblastoma Multiforme
  **Interventions:**  Drug: Trivax, Temozolomide, Surgery, Radiotherapy; Drug: Ten adiotherapy

89  **Assessment of 18FLT PET-CT for Volume Definition of High-grade Gliomas (GLIO-TEP)**

  **Conditions:**  High-Grade Glioma; Astrocytoma; Glioblastoma
  **Intervention:**  Radiation: 18F Fluorothymidine PET CT

90  **Study of the Poly (ADP-ribose) Polymerase-1 (PARP-1) Inhibitor BSI-201 in Patients With Newly Diagnosed Malignant Glioma**

  **Condition:**  Glioblastoma
  **Intervention:**  Drug: bsi-201 plus temozolomide

91  **A Randomized Phase II Trial of Vandetanib (ZD6474) in Combination With Carboplatin Versus Carboplatin Alone Followed by Vandetanib Alone in Adults With Recurrent High-Grade Gliomas**

  **Conditions:**  Glioblastoma Multiforme; Gliosarcoma; Anaplastic Astrocytoma; Oligodendroglioma; Anaplastic Mixed Oligoastrocytoma
  **Interventions:**  Drug: ZD6474; Drug: Carboplatin

92  **Aminolevulinic Acid During Surgery in Treating Patients With Malignant Brain Tumors**

  **Conditions:**  Adult Anaplastic Astrocytoma; Adult Anaplastic Oligodendroglioma; Adult Glioblastoma; Adult Gliosarcoma; Adult Mixed Brain Tumor
  **Interventions:**  Drug: aminolevulinic acid; Other: laboratory biomarker analysis
93  **HSPPC-96 Vaccine With Temozolomide in Patients With Newly Diagnosed GBM**

    Condition:  Brain and Central Nervous System Tumors
    Intervention: Biological: HSPPC-96

94  **Valproic Acid With Temozolomide and Radiation Therapy to Treat Brain Tumors**

    Conditions:  High Grade Gliomas; Brain Tumors
    Interventions:  Procedure: adjuvant therapy; Drug: Temozolomide; Drug: Valproic Acid; Radiation therapy

95  **A Study Combining LY2157299 With Temozolomide-based Radiochemotherapy in Patients With Newly Diagnosed Malignant Glioma**

    Condition:  Glioma
    Interventions:  Drug: LY2157299; Drug: Radiation; Drug: Temozolomide

96  **Bendamustine Hydrochloride in Treating Patients With Recurrent or Progressive Anaplastic Glioma**

    Conditions:  Adult Anaplastic Astrocytoma; Adult Anaplastic Oligodendroglioma; Brain Tumor
    Interventions:  Drug: bendamustine hydrochloride; Procedure: quality-of-life assessment

97  **Panitumumab and Irinotecan for Malignant Gliomas**

    Condition:  Malignant Glioma of Brain
    Intervention:  Drug: Panitumumab in Combination with Irinotecan

98  **HYPAZ: Hypertension Induced by Pazopanib**

    Conditions:  Renal Cell Carcinoma; Soft Tissue Sarcoma; Glioblastoma; Ovarian Cancer; Breast Cancer; Non-small Cell Lung Cancer; Small Cell Lung Cancer; Pancreatic Cancer
Gastrointestinal Cancer

Intervention: Drug: Pazopanib

99 BIBF 1120 for Recurrent High-Grade Gliomas

Conditions: Glioblastoma; Gliosarcoma; Anaplastic Astrocytoma; Anaplastic Oligoastrocytoma

Intervention: Drug: BIBF 1120

100 Dendritic Cell Vaccine for Patients With Brain Tumors

Conditions: Glioma; Anaplastic Astrocytoma; Anaplastic Astro-oligodendroglioma; Glioblastoma

Intervention: Biological: autologous tumor lysate-pulsed DC vaccination

IX. PubMed Search in GBM


Search = glioblastoma, published in the last 180 days, English only

Randomized Controlled Trials

Results: 3

1.

Neurocognitive function in patients with recurrent glioblastoma treated with bevacizumab.


PMID:

21558074
2. Phase II study of metronomic chemotherapy with bevacizumab for recurrent glioblastoma after progression on bevacizumab therapy.


PMID:

20853132

[PubMed - indexed for MEDLINE]

Free PMC Article

Free full text Related citations

3. Prognostic but not predictive role of platelet-derived growth factor receptors in patients with recurrent glioblastoma.


PMID:

20589679

[PubMed - indexed for MEDLINE]

Related citations

Reviews

Results: 23
1. 

**Current concepts and management of glioblastoma.**
PMID: 21786296
[PubMed - indexed for MEDLINE]
Related citations

2. 

**Glioblastoma: Part I. Current state of affairs.**
Salacz ME, Watson KR, Schomas DA.
PMID: 21736079
[PubMed - indexed for MEDLINE]
Related citations

3. 

**Pathway inhibition: emerging molecular targets for treating glioblastoma.**
Wick W, Weller M, Weller M, Batchelor T, Yung AW, Platten M.
PMID: 21636705
[PubMed - indexed for MEDLINE]
Related citations

4. Heterogeneity maintenance in glioblastoma: a social network.
Bonavia R, Inda MM, Cavenee WK, Furnari FB.
PMID:
21628493
[PubMed - indexed for MEDLINE]

Related citations

Syrigos KN, Karapanagiotou E, Boura P, Manegold C, Harrington K.
PMID:
21627340
[PubMed - indexed for MEDLINE]

Related citations

6. Anti-angiogenic therapy in glioma.
Butowski N.
Clin Transl Oncol. 2011 May;13(5):294-300. Review.
PMID:
21596656
[PubMed - indexed for MEDLINE]
Related citations


Related citations

Related citations

Singh G, Chan AM.
PMID: 21486223

11. Tumor microenvironment and progression.
Dvorak HF, Weaver VM, Tlsty TD, Bergers G.
PMID: 21480238

Brennan C.
PMID: 21465149
Cancer-Glioblastoma HittPack™

[PubMed - indexed for MEDLINE]

Related citations

Manoranjan B, Provias JP.


PMID: 21464236

[PubMed - indexed for MEDLINE]

Related citations


PMID: 21453286

[PubMed - indexed for MEDLINE]

Related citations

15. The brain tumor microenvironment.
Charles NA, Holland EC, Gilbertson R, Glass R, Kettenmann H.


PMID:
The origins of glioma: E Pluribus Unum?
Siebzehnrubl FA, Reynolds BA, Vescovi A, Steindler DA, Deleyrolle LP.
PMID:
21351156

Signal transduction inhibitors and antiangiogenic therapies for malignant glioma.
Mellinghoff IK, Lassman AB, Wen PY.
PMID:
21351155

CXCL12 (SDF1alpha)-CXCR4/CXCR7 pathway inhibition: an emerging sensitizer for anticancer therapies?
Duda DG, Kozin SV, Kirkpatrick ND, Xu L, Fukumura D, Jain RK.
PMID:
PMID: 21293176

PMID: 21279815

A case of soft tissue metastasis from glioblastoma and review of the literature.


Metabolic management of brain cancer.

Seyfried TN, Kiebish MA, Marsh J, Shelton LM, Huysentruyt LC, Mukherjee P.

1. Targeted Therapy for Glioblastoma Multiforme.
Halatsch ME.
PMID: 21864239
[PubMed - as supplied by publisher]
Related citations

2. Connective tissue growth factor and the parallels between brain injury and brain tumors.
Halliday JJ, Holland EC.
PMID: 21771731
[PubMed - indexed for MEDLINE]
Related citations

3. Glioblastoma multiforme: can neural stem cells deliver the therapeutic payload and fulfill the clinical promise?
Ahmed AU, Lesniak MS.
PMID: 21651324
4. Clinical end points in recurrent glioblastoma: are antiangiogenic agents friend or foe?
Franceschi E, Brandes AA.
PMID:
21554036

Ahluwalia MS, Wen PY.
PMID:
21554035

6. Low Karnofsky Performance Scale score and glioblastoma multiforme.
Elder JB, Chiocca EA.


PMID:
21548743

[PubMed - in process]

Related citations

7. Extent of resection.

Ngwenya LB, Chiocca EA.


PMID:
21417711

[PubMed - indexed for MEDLINE]

Related citations


Duncan CG, Yan H.


PMID:
21389786

[PubMed - indexed for MEDLINE]

Related citations