



BAY 43-9006 Fact Sheet

Mechanism of Action

- BAY 43-9006, a novel RAF kinase and VEGFR inhibitor under investigation for the prevention of tumor growth, combines two anticancer activities: inhibition of tumor cell proliferation and tumor angiogenesis.
- In preclinical models, BAY 43-9006 inhibited tumor cell proliferation by targeting the RAF/MEK/ERK signaling pathway at the level of RAF kinase; BAY 43-9006 also exerted an antiangiogenic effect by targeting the receptor tyrosine kinases VEGFR-2 and PDGFR and their associated signaling cascades.

Clinical development

- In preclinical models, BAY 43-9006 has shown anticancer activity in a number of tumor types. It is being evaluated both as a single therapy and in combination with conventional chemotherapeutics.¹
- BAY 43-9006 has already been evaluated in:¹
 - Five Phase I single-agent studies.
 - Eight ongoing Phase Ib/II combination studies with standard chemotherapeutics
 - Two ongoing Phase II trials evaluating BAY 43-9006 in multiple advanced tumor types.
- Bayer/Onyx have initiated an international, multi-center Phase III trial to further evaluate the safety and efficacy of BAY 43-9006 in the treatment of advanced renal cell carcinoma (RCC).
 - More than 1000 people will participate in the study at sites worldwide.
 - To be eligible for the study, people with unresectable and/or metastatic disease must have failed previous systemic therapy.
 - The primary objective of the randomized study will be to confirm the early suggestion of clinical activity of BAY 43-9006 in RCC, using improvement in survival as the primary endpoint for assessment of clinical benefit. The study also will assess time to progression (TTP), overall response rate, safety, quality of life and the pharmacokinetics of BAY 43-9006.
- BAY 43-9006 is being co-developed by Bayer Pharmaceuticals Corporation (NYSE: BAY) and Onyx Pharmaceuticals, Inc. (Nasdaq: ONXX).

Safety data

- A large safety database -- over 1,000 patients has received this oral compound for various tumor types.

- In the Phase II RCC study, the most commonly reported drug-related events included mild-to-moderate hand-foot syndrome, rash, diarrhea, and hypertension, which were shown to be manageable and reversible.
- In the Phase I/II melanoma study, the non-hematologic side effects observed with the combination were consistent with those known to occur with each agent delivered alone.
 - The most common side effects included hand-foot syndrome, infection, vomiting, and rash.
 - No pharmacokinetic interaction between BAY 43-9006 and paclitaxel or carboplatin was reported.

Additional BAY 43-9006 ASCO data

Additional BAY 43-9006 data being presented at this year's ASCO meeting include:

- Phase I/II trial of BAY 43-9006, carboplatin (C) and paclitaxel (P) demonstrates preliminary antitumor activity in the expansion cohort of patients with metastatic melanoma. Keith T. Flaherty, MD. Abstract #7507 (Oral Presentation)
- BAY 43-9006 in patients with advanced melanoma: The Royal Marsden experience. Tanya Ahmad, MRCP. Abstract #7506 (Oral Presentation)
- A phase I/II trial of BAY 43-9006 and gemcitabine in advanced solid tumors and in advanced pancreatic cancer. Lillian L. Siu, MD. Abstract #3059 (Poster #M9)
- Results of a phase I trial of BAY 43-9006 in combination with doxorubicin in patients with refractory solid tumors. Heike Richly, MD. Abstract #3049 (Poster #L10)
- A randomized phase I clinical and biologic study of two schedules of BAY 43-9006 in patients with myelodysplastic syndrome (MDS) or acute myeloid leukemia (AML): A National Cancer Institute of Cancer Clinical Trials Group Study. Michael Crump, MD. Abstract #6611 (Poster # L11)
- Pharmacodynamic study of the RAF kinase inhibitor BAY 43-9006: Mechanisms of hypertension. Maria Luisa Veronese, MD. Abstract #2035 (Poster #25)
- Results of a phase I trial of BAY 43-9006 in combination with oxaliplatin in patients with refractory solid tumors. Petra Kupsch, MD. Abstract #3056 (Poster #M6)

BAY 43-9006 in Renal Cell Carcinoma: Phase II Multi-center, Randomized

Discontinuation Study

Data (Abstract #4501) presented at 2004 American Society of Clinical Oncology meeting, New Orleans, USA

Design:

- Study of patients with advanced renal cell carcinoma (RCC), or kidney cancer.
- Upon entry into the study, over 85 percent of the study participants with RCC had tumors that progressed despite at least one prior systemic treatment, and all patients had progressive disease.
- Two stages of study: 12-week induction phase followed by a randomization phase and a parallel BAY 43-9006 open-label phase.
- During first stage, all study participants received BAY 43-9006 orally at 400 mg twice daily.

- Subsequently, those patients with tumor burden within 25 percent of pretreatment measurements were randomized to either BAY 43-9006 or placebo for another 12 weeks of treatment. At study conclusion, blind will be broken on randomized patients to evaluate affect of BAY 43-9006 on disease stabilization.
- Additionally, after the initial 12-week stage, those with tumor shrinkage of more than 25 percent continued to be treated with open-label BAY 43-9006.
- Patients with tumor growth of 25 percent or more were discontinued from the study.

Results:

- Data included tumor response for 89 participants (of 106 total RCC patients) assessed at 12 weeks, as well as duration of response data for 37 participants who experienced tumor shrinkage greater than 25 percent.
- Thirteen of these participants had tumors shrink by at least 50 percent at the 12-week assessment. Nine were confirmed by subsequent scans conducted at least six weeks later.
- Thirty-eight participants had disease stabilization and were randomized.
- The remaining 31 (of 106) participants had disease progression or were discontinued from the study for other reasons.
- The entire group of 37 patients who had tumor shrinkage, and who continued to receive BAY 43-9006 in the open-label phase of the study, had an estimated median TTP of 48 weeks based on investigator assessment. Eighty-eight percent of these participants were progression free at six months.
- These investigator-reported data, including the confirmatory radiology scans needed to define response rates, are subject to a final independent radiologic review, which will be completed by the sponsor at the study's conclusion.

BAY 43-9006: Phase I/II Clinical Data in Metastatic Melanoma
Data (Abstract #7507) presented at 2004 American Society of Clinical Oncology meeting, New Orleans, USA

Design:

- Initially designed to evaluate the safety and efficacy of BAY 43-9006 administered in combination with carboplatin and paclitaxel, the trial was expanded to evaluate the effectiveness of the regimen in advanced melanoma patients once safety of the combination was observed.

Results:

- Evaluation included 35 study participants in the Phase I/II study, the majority of whom had the most advanced stage of metastatic melanoma.
- Eighty-three percent of study participants treated with the combination of BAY 43-9006 plus carboplatin and paclitaxel were observed to have tumor shrinkage or disease stabilization while on study treatments.
- Of the 35 study participants, fourteen participants (40 percent) had tumor shrinkage of 30 percent or greater, all these partial responses by RECIST criteria lastet at for six months or more. At the time of this analysis, only three of these participants had disease progression at 10 to 12 months.
- An additional 15 participants (43 percent) had disease stabilization.
- Six participants had disease progression or exited the trial for other reasons.

- For all study participants, estimated median TTP was 10 months (investigator assessment).
- Data subject to final independent review at the end of the study.
- Study data also indicated that the combination demonstrated activity that was not wholly dependent on a BRAF gene mutation to activate the Ras pathway. BRAF gene mutations, of which V599E is the most common form, are thought to occur in about two-thirds of malignant melanoma tumors.

Leverkusen, June 7, 2004

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Forward Looking Statements

This news release contains forward-looking statements based on current assumptions and forecasts made by Bayer Group management. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. These factors include those discussed in Bayer's public reports filed with the Frankfurt Stock Exchange and with the U.S. Securities and Exchange Commission (including its Form 20-F). Bayer assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.

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