(4 variants) and influenza matrix protein as a control peptide. Patients' pre-vaccine PBL were stimulated *in vitro* with each single peptide. Peptide pulsed T2 cells (Cr^{51} labelled) served as targets for testing CTL activity *in vitro*. *Results:* Patient NW 1 showed a strong CTL response (65% lysins) against the influenza control peptide. A moderate DTH after influenza peptide injection was observed. Patient NW 2 showed a spontaneous CTL activity (41% lysis) against Tyrosinase and Influenza peptide (43% lysis). A clear DTH was observed after Tyrosinase injection. Patient NW 3 showed only minor CTL activity against gp100 (18% lysis) and Influenza peptide (23% lysis) pre-vaccine *in vitro*. A mild DTH was observed after gp100 injection. None of the patients showed detectable changes at tumor sites. No toxic side effects were observed. DTH reactions were only observed for peptides against which a measurable pre-vaccine CTL activity was detected. *Conclusion:* Intradermal injection of nona- or decapeptides showed no detectable toxicity and may induce a measurable immuneresponse *in vivo* without the use of adjuvants.

223 POSTER

INCREASED THYMIDYLATE SYNTHASE GENE EXPRESSION IN METASTATIC MELANOMA

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Thymidylate synthase (TS) is essential for the *de novo* synthesis of thymidylate, a precursor of DNA. It is also a key target for cancer chemotherapeutic agents. We investigated TS expression by semiquantitative reverse transcriptase-PCR in metastatic melanoma, and compared results with those obtained from control tissues. For quantification digital autoradiography was developed. The relative expressions of TS (TS/β-actin) were 0.49, 0.90, 0.44, 0.30, 0.28, 0.36 and 0.54 (mean 0.47) in skin, lymph node, spleen, muscle, gut, and muscle, respectively. In melanoma samples, expression levels varied from 0.85 to 2.6 (mean 2.0). There was no clear correlation between the high TS/β-actin ratio and the fraction size in S-phase. We observed that there was a large variation in TS gene expression in melanoma samples, and that the expression was considerably higher in melanomas than in control tissues. Our data suggests that clinical trials with new thymidylate synthase inhibitors should be taken for consideration in the management of melanoma.

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224 POSTER

COMPARISON OF EFFICACY TWO DIFFERENT DOSE DTIC-BASED CHEMOTHERAPY REGIMENS AND TWO NON-DTIC BASED REGIMENS IN THE TREATMENT OF METASTATIC MALIGNANT MELANOMA; STUDY IN 159 PATIENTS

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159 patients with disseminated malignant melanoma entered the four arm randomized study. Arm A: Adriamycin ADM 40 mg/m^2 day 1, BCNU 120 mg/m^2 and Vincristin (VCR) 1.4 mg/m^2 day 2, DTIC 300 mg/m^2 days 3–6 and Procarbazine (PCB) 100 mg/m^2 days 1–10. Arm B: ADM 40 mg/m^2 day 1, BCNU 120 mg/m^2 and VCR 1.4 mg/m^2 day 2, DTIC 600 mg/m^2 days 3–6 and PCB 100 mg/m^2 days 1–10. Arm C: Vindesine 3 mg/m^2 day 1, Bleomycin 7 mg/m^2 days 1–4 and Cisplatin 30 mg/m^2 days 5–8. Arm D: BCNU 120 mg/m^2 day 1, PCB 100 mg/m^2 days 1–10 and BCG scarification days 8 and 10. The number of evaluable/included patients in each arm was: 28/32 in arm A, 28/31 in arm B, 30/38 in arm C, 54/58 in arm D. Overall RR was 10.71% in arm A, 14.29% in arm B, 30% (6.67 CR) in arm C, 12.96% in arm D. RR was statistically higher in arm C. Main toxicity for arm A and B was leukopenia. Thrombocytopenia increased with DTIC dose escalation in arm B. Nausea and vomiting were equal in arms A, B and C. Arm D was without any significant toxicity. Time to progression and median survival (MS) were similar for all groups, respectively: 2.97 months (MS = 4) in arm A, 3.23 months (MS = 4) in arm B, 2.93 months (MS = 5) in arm C and 3.43 months (MS = 4) in arm D. Results suggest that escalation of DTIC dose (arm B) does not improve RR, at the same time hematological toxicity increases. Deletion of DTIC (arm D) did not reduce RR. Combination with Cisplatin (arm D) seems to be more effective but without benefit regarding time to progression and survival.

225 POSTER

THE APPLICATION OF A NEW INFORMATION TECHNOLOGY—MULTIMEDIA—IN THE PRIMARY AND SECONDARY PREVENTION OF MALIGNANT MELANOMA

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The purpose of this project is to use multimedia techniques to increase public knowledge about malignant melanoma and the risk factors for developing the disease, to increase awareness of preventive measures, and to make people more disposed to change their life style habits. The program is also intended to be a source of knowledge and reference for different categories of medical staff.

The program is resident on CD-ROM. Different presentations can be selected for different target groups: (1) Pregnant women and parents with small children; (2) General population; (3) Health care staff. When in use for the public, the monitor is enclosed in a kiosk and equipped with a touch screen.

The multimedia program will be demonstrated and results of an extensive assessment reported.

226 PUBLICATION

LONG TERM QUALITY OF LIFE IN DACARBAZINE-TREATED PATIENTS RECEIVING TROPISETRON PROPHYLAXIS

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Dacarbazine is a highly emetogenic drug leading to severe nausea and emesis in almost every patient in case no antiemetic treatment is given. Ninety patients with melanoma (Karnofsky index $\geqslant$ 70%) received dacarbazine chemotherapy during up to 14 courses of chemotherapy. As antiemetic prophylaxis, 5 or 10 mg tropisetron was given once daily orally. During chemotherapy, the patients filled in diary cards reporting quality of life and general symptoms (well-being, sleep, nervousness, pain, mood, tiredness, food intake).

In spite of treatment with a highly emetogenic drug, most patients rated quality of life good during several courses. General condition did not change significantly during treatment. Furthermore, normal food intake was maintained in most cases. We conclude that antiemetic prophylaxis with tropisetron helps to maintain quality of life and longterm well-being in patients receiving dacarbazine by effectively preventing the most distressing side effects of chemotherapy.

Growth factors

227 ORAL

PRODUCTION OF BASIC FIBROBLAST GROWTH FACTOR BY HUMAN NON SMALL CELL LUNG CANCER CELLS

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Basic fibroblast growth factor (bFGF), a potent angiogenic cytokine, also acts as autocrine growth factor for certain malignant cells. We investigated the production of bFGF in human NSCLC cell lines (primary and metastatic). In 8/10 cell lines bFGF was detected by immunocytochemistry in cytoplasm. Additionally, Western blot analysis confirmed the presence of this protein in cytosol preparations (CP). With ELISA levels of bFGF in CP were in the range of 50–916 pg/mg protein. Specific mRNA for bFGF was demonstrated in 9 out of 10 cell lines by