

## S25. Results of the CAPP-2-trial (Aspirin and resistant starch) in HNPCC gene carriers

J. Burn<sup>1\*</sup>, D.T. Bishop<sup>2</sup>, J. Mecklin<sup>3</sup>, F. Macrae<sup>4</sup>, G. Möslein<sup>5</sup>, S. Olschwang<sup>6</sup>, M. Bisgaard<sup>7</sup>, R. Ramesar<sup>8</sup>, F. Elliott<sup>2</sup>, J. Mathers<sup>9</sup>

<sup>1</sup>Institute of Human Genetics, Newcastle University, Newcastle upon Tyne, UK, <sup>2</sup>Leeds University, Section of Epidemiology & Biostatistics, Institute of Molecular Medicine, Leeds, UK, <sup>3</sup>Jyväskylä Central Hospital, Dept of Surgery, Jyväskylä, Finland, <sup>4</sup>Royal Melbourne Hospital, Melbourne, Australia, <sup>5</sup>St. Josefs-Hospital, Bochum-Linden, Germany, <sup>6</sup>Institut Paoli Calmettes, Dept d'oncologie génétique, Marseille, France, <sup>7</sup>University of Copenhagen, Danish HNPCC Register, Hvidovre, Denmark, <sup>8</sup>University of Cape Town, Division of Human Genetics, Cape Town, South Africa, <sup>9</sup>Newcastle University, Human Nutrition Research Centre, Newcastle upon Tyne, UK

This randomised placebo controlled trial examined the effects of 600 mg/d of enteric coated Aspirin and 30 g/d maize starch (Novelose®) in a 2×2 factorial design in proven carriers of Lynch syndrome (hereditary non-polyposis colon cancer). Of the 1071 randomised in the 43 participating centres, 62 were considered ineligible and 72 did not start treatment. Of the 937 who started treatment, 191 withdrew during the study and no exit colonoscopy was obtained. The three groups of exclusions were equally distributed across the four groups, Aspirin/resistant starch, Aspirin/placebo, resistant starch/placebo and placebo/placebo. After an average of 29 months (7.4–74.4) on treatment, 141 participants developed colonic adenoma or carcinoma. For Aspirin, 561 participants were randomised: 66 participants (18.9% of participants) developed one or more neoplastic lesions while on treatment whereas 65 (19.0%) developed a neoplasm on placebo. The crude relative risk for a treatment effect is 1.00 (95% confidence interval 0.67, 1.47). For advanced adenoma or colorectal cancer, there was a small, non-significant reduction in the incidence for those on treatment (8.1% on treatment compared to 10.9% on placebo,  $p=0.4$ ).

For resistant starch, 591 persons were randomised to treatment or placebo; 67 (18.7%) of the treated group and 68 (18.5%) of the untreated group developed neoplasia corresponding to a crude relative risk of 1.02 [95% CI (0.69,1.50)]. Adenomas and carcinomas were evenly distributed between treated and untreated groups as was the phenotype of advanced adenoma and/or carcinoma. In the Aspirin treated group, 10 participants developed colorectal cancer: 10 participants in the placebo group also developed colorectal cancer. Eight participants developed an HNPCC cancer (excluding colorectal cancer) as compared with 14 on placebo ( $p=0.3$ ). For the resistant starch treated group, 10 participants developed colorectal cancer compared with 12 on placebo. Seven participants developed HNPCC cancer (excluding colorectal cancer) as compared with 17 on placebo ( $p=0.05$ ). Kaplan Meier analysis revealed no evidence of a difference in time to first neoplasm. Aspirin and resistant starch in these formulations and doses have no impact on development of colorectal neoplasia in carriers of Lynch syndrome over a mean 29 month study period with no evidence of effect up to 4 years. A delayed effect cannot be excluded.