

## “BENEFICIAL PROPERTIES OF A SYNBIONTIC INNOVATIVE SUPPLEMENT (PROBIT®; MGP GOLD AND KLUYVEROMYCES MARXIANUS B0399) ON ANTIBLASTIC DRUGS-INDUCED GASTROINTESTINAL SIDE EFFECTS”

Dott.ssa Edy Virgili <sup>(1)</sup>, Dott. Luca Imperatori <sup>(2)</sup>, Dott.ssa Milena Malvestiti <sup>(3)</sup>, Dott.ssa Donatella Morale <sup>(4)</sup>, Proff. Francesco Alessandro Palermo <sup>(5)</sup>, Dott.ssa Rita Emili <sup>(6)</sup>, Dott.ssa Federica Calcagnoli <sup>(1)</sup>, Dott.ssa Laura Calza <sup>(1)</sup>, Dott. Michele Gardarelli <sup>(7)</sup>, Dott. Mauro Mantovani <sup>(1)</sup>

<sup>1</sup>ARTIB

<sup>2</sup>PRESIDIO OSPEDALIERO SANTA CROCE DI FANO

<sup>3</sup>Outpatient Nutritionist Ascoli Piceno Italy

<sup>4</sup>OSPEDALE C. E G. MAZZONI DI ASCOLI PICENO

<sup>5</sup>UNICAM (UNIVERSITÀ DEGLI STUDI DI CAMERINO)

<sup>6</sup>OSPEDALE SANTA MARIA DELLA MISERICORDIA DI URBINO

<sup>7</sup>Outpatient Medical Doctor Ancona Italy

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Very often chemotherapy is used, alone or in combination, and the patient's immune system is weakened by repeating drugs cycles. Quality of life is also profoundly impaired by psychological and physiological difficulties. One of these is related to severe gastro-enteric discomfort and, in particular, disruption to the defecation cycle. Consequently, patients experience distress during evacuation, alternating dry and hard stools with frequent bowel movements of a more liquid consistency, accompanied by intestinal cramps, inflammation and localized pain. Moreover, the clinical status is impacted by nutrients malabsorption, worsening neoplasia-induced cachexia and anemia. The present study has been conducted on 34 patients (age: 34-58 yrs; 59% male subjects) with different types of neoplasia and under diverse chemotherapeutic drugs therapy with the objective of testing the efficacy of a synbiontic supplement, called Probit®. The innovative aspect of this formula is linked to the coexistence of a particular type of Papaya (MGP Gold) and a probiotic (*Kluyveromyces marxianus* B0399). Papaya MGP Gold has prebiotic properties, protective effects on the mucosal intestinal layer and anti-inflammatory activity. *Kluyveromyces marxianus* B0399 is a particular homofermentative yeast, able to cross the gastric barrier and to reach the intestine as active form, where it coadjuvates the digestion of SIBO-inducing fermentable oligosaccharides. Probiotic traits of *K. marxianus* B0399 are also related to the adhesion and immune modulation, symbiotic mutualistic relationship with gut-intestine microbiota, competing against pathogens (i.e., *Salmonella*, *Candida*, *Escherichia Coli*, etc.) and showing pro-Bifidobacteria activity. After a month-therapy with Probit®, diarrhoeic episodes have been reported to be markedly reduced of more than 50% in all subjects. Moreover, results have demonstrated decreased asthenia, significant quality of life amelioration, increased macro-micro nutrients absorption and better anthropometrical evaluation.