



News Release

Exciting new research points to the potentially life-prolonging effects of Barry Callebaut's ACTICOA™ chocolate: Chocolate That Makes You Live Longer

- **The lifespan of rats that consumed cocoa polyphenols from ACTICOA™ chocolate is 30% longer than that of rats subjected to the same stress levels without the cocoa polyphenols**
- **ACTICOA™ cocoa and chocolate is now the richest natural source of antioxidants, containing a much higher polyphenol concentration than red wine or green tea**

Wieze/Belgium, January 17, 2007 - Scientific research into the nutritional benefits of cocoa continues to unlock the secrets of this remarkable fruit. The positive effects of cocoa polyphenols on health and well-being have been known for some time now and the list of proven properties of these powerful antioxidants continues to grow. A recent study conducted by the independent ETAP Research Center in France is breaking entirely new ground in establishing links between the consumption of polyphenols and longevity. Its findings point to the possibility that cocoa polyphenols not only improve the quality of life, especially when getting older, but may well play a part in prolonging it as well. The study concluded that the lifespan of rats consuming Barry Callebaut's ACTICOA™ cocoa polyphenol powder was 30% longer than that of rats subjected to the same stress levels without being given cocoa polyphenols.

The study, the first of its kind in the world, involved the administering of a cocoa polyphenol extract to rats prior to and during the induction of considerable levels of stress. Results suggest that regular consumption of ACTICOA™ chocolate, rich in polyphenols, could prolong life of humans as well.

Dr. Jean-François Bisson, PhD, Director of the Department of Cancerology and Human Pathologies at the ETAP Research Center in France, was understandably excited by the findings of this unique study¹: *"We have demonstrated that a cocoa polyphenol powder, orally administered before the induction of chronic oxidative stress and subsequently throughout the course of the rat's lifetime, significantly inhibits the effects of chronic oxidative stress and increases their lifespan, particularly at the low dose of 24 mg/kg body weight. To our knowledge, this is the first report proving that cocoa polyphenols produce such benefits in rats. Given the results of the present study and the findings of others, there is evidence that suggests that the daily consumption of small amounts of cocoa or chocolate rich in cocoa polyphenols may offer some protection against chronic oxidative stress and increase the lifespan of humans."*

While the nutritional potency of cocoa has been exploited in traditional medicines for centuries, it is only relatively recently that the numerous health benefits of this remarkable fruit have been attributed to the large variety and unmatched abundance of the polyphenols contained within it. These powerful antioxidants are said to have positive effects on a whole range of bodily functions from the immune and respiratory systems, to brain function and the immune response.



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Herwig Bernaert, Innovation Manager Fundamental Research, explains: *“In the traditional chocolate production process a significant reduction of the amount of flavonoids is inevitable. At Barry Callebaut, we strive to be the leading force of innovation in the industry, therefore we developed ACTICOA™, a revolutionary new process to produce chocolate with a high amount of polyphenols naturally present in the cocoa bean without compromising the enticing flavor and smooth texture of ordinary chocolate.”*

ACTICOA™ chocolate is now the richest natural source of antioxidants, containing a much higher polyphenol concentration than red wine or green tea. Dark ACTICOA™ chocolate contains twice as much cocoa polyphenols as standard dark chocolate while ACTICOA™ milk chocolate contains as much cocoa polyphenols as standard dark chocolate and four times as much as standard milk chocolate. With new discoveries continually being made into the lasting effects of these magical compounds, Barry Callebaut is rapidly changing the way we look at chocolate. No longer a mere indulgence, there is a growing awareness of the potentially beneficial properties of cocoa and the ways they are preserved and enhanced in Barry Callebaut's ACTICOA™ chocolate.

ⁱ The effects of Acticoa powder, a cocoa polyphenolic extract, were investigated in 60 male Wistar-Unilever rats randomly divided into four groups of 15 rats each. The control group, not subjected to chronic oxidative stress, was treated with a vehicle (or placebo) only (NI + vehicle). The three other groups were subjected to chronic oxidative stress (CI). Two weeks prior to the induction of chronic oxidative stress and subsequently throughout the experiment, the non-control group rats were orally treated either with Acticoa powder at 24mg/kg of body weight (CI + AP24) or with the placebo vehicle (CI + vehicle). The dosage was administered daily from Monday to Friday. Survival, body weight, food and water consumption were recorded throughout the experiment. The lifespan of the CI+AP24 treated group was significantly increased in comparison with the CI + vehicle treated groups and was close to that of the NI + vehicle treated group. The food and water consumption rates of CI + AP24 treated groups were also significantly higher than those of the CI + vehicle treated group, close to those of the NI + vehicle treated group.

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Barry Callebaut :

With annual sales of more than CHF 4 billion for fiscal year 2005/06, Zurich-based Barry Callebaut is the world's leading manufacturer of high-quality cocoa, chocolate and confectionery products – from the cocoa bean to the finished product on the store shelf. Barry Callebaut is present in 25 countries, operates more than 30 production facilities and employs approximately 8,000 people. The company serves the entire food industry, from food manufacturers to professional users of chocolate (such as chocolatiers, pastry chefs or bakers), to global retailers. It also provides a comprehensive range of services in the fields of product development, processing, training and marketing.

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