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MEDIA RELEASE

CDW develops anti-aging skincare compound, signs agreement with a major Japanese cosmetics manufacturer

- **New compound developed after four years of research and development boosts collagen in skin**
- **Tests show 20% wrinkle reduction after four weeks of daily use, outperforming a market leader by over three times**
- **Signed a supplier agreement with a major Japanese cosmetics manufacturer, Cosmo Beauty**
- **Patents secured in Japan and Korea, with patents in EU, Hong Kong, and India pending**

SINGAPORE, 28 January 2021 – CDW Holding Limited (“**CDW**”, the “**Company**”, or collectively with its subsidiaries, the “**Group**”) is delighted to announce that Tomoike Bio Limited (“**Tomoike Bio**”), a wholly-owned subsidiary of the Group, has entered into a master supplier agreement with Cosmo Beauty Co., Ltd. (“**Cosmo Beauty**”) which will last until 31 December 2021.

Background. Resveratrol is a natural chemical found in foods such as grape skins. In 2003, researchers discovered that it has the potential to induce antioxidants, anti-cancer, and anti-inflammatory outcomes in humans¹. However, resveratrol is rapidly broken down by the body², leaving it little time to exert its beneficial effects.

Pterostilbene, a compound commonly found in blueberries, is similar to resveratrol in its therapeutic effects but possesses a crucial structural difference. First isolated in 1940, researchers discovered that pterostilbene's different molecular structure enhances its bioactivity and remains in the body longer than resveratrol³, allowing more time for its antioxidant properties to have an effect.

Along with a number of other anti-fungal and anti-diabetic properties, pterostilbene has shown clinical potential for supporting heart health, cognitive function, anti-aging, weight loss and other metabolic disorders⁴.

Development history. The Group patented a way to further enhance the potency of pterostilbene, through a process known as glycosylation (Patent No: PCT/JP2018/004122). Glycosylation is commonly used to increase water solubility, absorbability, stability, and drug efficacy in pharmaceuticals, supplements and cosmetics.

“The successful glycosylation of pterostilbene enhances its ability to stimulate Type 4 and 17 collagen production in skin. Type 4 collagen decreases with aging, so the compound’s ability to reverse that makes it particularly effective for wrinkle prevention in cream-based cosmetics and skincare products”, says Professor Hiroki Hamada, the lead researcher of the project.

Professor Hiroki Hamada currently lectures at the Okayama University of Science. He was awarded the Uchiyama Yuzo Science and Technology Award in 2010, and the Japanese Society for Plant Cell and Molecular Biology Technology Award in 2011. While working with CDW, he first published two research papers documenting the collagen-boosting⁵, and skin lightening effects⁶ of glycosylated pterostilbene in 2016.

Internal testing. A study conducted by Cosmo Beauty on the new pterostilbene glycoside beauty cream found it improved wrinkles by 20% on average, after just four weeks of daily use. The study tested a cream with just 1% pterostilbene glycoside as the active ingredient, in comparison with a competitor's wrinkle improving cream.

The subjects applied a single grain-sized drop of the cream twice daily, once in the morning and evening. The pterostilbene glycoside cream was applied to the right eye area, while a leading Japanese brand’s wrinkle-improving cream was applied to the left one for comparison. After four weeks, improvements to the wrinkle lines around the subjects’ eyes were measured using an ultra-high accuracy digital microscope.

The test results found that the pterostilbene glycoside beauty cream applied to the right eye area improved crows’ feet wrinkles by 20% on average, making it over three times as effective as the competitor's wrinkle-improving cream applied to the left eye area, which improved by only 6% on average.

Commercialisation. The ground-breaking study by the Group marks the first ever use of pterostilbene glycoside in skincare and cosmetics. After four years of research and development to ensure its safety and efficacy, the new compound is finally ready to make its debut into skincare and cosmetics products.

The Group has obtained patent approvals in Japan (Patent No. JP6233826 on 2 November 2017) and in Korea (Patent No. KR10-1932877 on 19 December 2018) respectively, while the patents in EU, Hong Kong, and India are still pending. The Group is also assessing more ways to leverage on the collagen-enhancing properties of pterostilbene glycoside in other product categories in the skincare and beauty industry.

The Japanese market for wrinkle-improving creams is highly lucrative. Japan's fourth largest cosmetics company released its first facial wrinkle-fighting cream in 2017, after fifteen years of research and development. Sales in the first six months reached nearly 8.7 billion Japanese Yen (approximately S\$112m). Rival products launched in the same year from another leading Japanese skincare brand, sold 680,000 units, or approximately 4.08 billion Japanese Yen (about S\$52m) in the first month alone.

Since 2019, Tomoike Bio has been working together with Cosmo Beauty on commercialising this new compound, and has entered into an agreement to become the supplier of pterostilbene glycoside to be used in Cosmo Beauty's extensive range of products.

“Demonstrating the superior efficacy of pterostilbene glycoside is an important development milestone, both for the company and the industry. We are the first company to harness the tremendous potential of pterostilbene glycoside in the skincare and cosmetic industry.”, said Mr Yoshikawa Makoto, Executive Director and Chief Executive Officer of CDW.

Founded in 1986, Cosmo Beauty is an integrated manufacturer and distributor for various cosmetics, hair care products, and nutraceuticals. Its customers include retailers, pharmaceutical and cosmetics brands, household goods wholesalers. According to the Teikoku Databank, Cosmo Beauty registered net sales of nearly \$23 billion Japanese Yen (approximately \$297 million SGD) for the year ended March 2019, at a compound annual growth rate of 7.12% over the last 3 years. Cosmetics-related sales accounted for 70.6% of total sales, nutraceuticals for 15.4%, and pharmaceuticals for 3.4%. For the year ended March 2019, the Japanese market accounted for 82.5% of Cosmo Beauty's revenue.

This year, it is still in development and the supplier agreement is not expected to have a significant material impact on the Company's performance for the financial year ending 31 December 2021.

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About CDW Holding Limited

(www.cdw-holding.com.hk)

CDW Holding Limited (“CDW” and together with its subsidiaries, the “Group”) is a Japanese-managed precision components specialist serving the global market focusing on the production and supply of niche precision components for mobile communication equipment, gamebox entertainment equipment, consumer and information technology equipment, office equipment and electrical appliances. The Group is headquartered in Hong Kong and has operations in Japan, China and the Philippines. The Company has been identifying new businesses to invest in with the potential for growth and entered as part of its diversification strategy and has made forays into the Life Sciences sector since 2016. The Company’s aim for its Life Sciences business is to identify research-driven yet commercializable projects that can have a positive impact on the quality of human life.

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¹ Salehi, B., Mishra, A., Nigam, M., Sener, B., Kilic, M., Sharifi-Rad, M., Fokou, P., Martins, N. and Sharifi-Rad, J., 2018. Resveratrol: A Double-Edged Sword in Health Benefits. *Biomedicines*, 6(3), p.91.

² Chimento, A., De Amicis, F., Sirianni, R., Sinicropi, M., Puoci, F., Casaburi, I., Saturnino, C. and Pezzi, V., 2019. Progress to Improve Oral Bioavailability and Beneficial Effects of Resveratrol. *International Journal of Molecular Sciences*, 20(6), p.1381.

³ Journal of Applied Pharmaceutical Science, 2019. Resveratrol and pterostilbene: A comparative overview of their chemistry, biosynthesis, plant sources and pharmacological properties. 9(7), pp.124-129.

⁴ McCormack, D. and McFadden, D., 2013. A Review of Pterostilbene Antioxidant Activity and Disease Modification. *Oxidative Medicine and Cellular Longevity*, 2013, pp.1-15.

⁵ Hamada, H., Shimoda, K., Horio, Y., Ono, T., Hosoda, R., Nakayama, N. and Urano, K., 2017. Pterostilbene and Its Glucoside Induce Type XVII Collagen Expression. *Natural Product Communications*, 12(1), pp.1934578X1701200.

⁶ Uesugi, D., Hamada, H., Shimoda, K., Kubota, N., Ozaki, S. and Nagatani, N., 2016. Synthesis, oxygen radical absorbance capacity, and tyrosinase inhibitory activity of glycosides of resveratrol, pterostilbene, and pinostilbene. *Bioscience, Biotechnology, and Biochemistry*, 81(2), pp.226-230.