

Synthesis of Vildagliptin Conjugated Metal Nanoparticles for Type II Diabetes Control: Targeting DPP-IV Enzyme

**Sharmeen Fayyaz¹, Dania Ahmed^{2, 3*}, Sadia Khalid², Sehrosh Naz Khan², M. Raza Shah²,
and M. Iqbal Choudhary^{1, 2, 4}**

¹Dr. Panjwani Center for Molecular Medicine and Drug Research, International Center for
Chemical and Biological Sciences, University of Karachi, Karachi-75270, Pakistan

²H. E. J. Research Institute of Chemistry, International Center for Chemical and Biological
Sciences, University of Karachi, Karachi-75270, Pakistan

³Department of biotechnology, Dow University of Health Sciences, Karachi-75270, Pakistan

⁴Department of Chemistry, Faculty of Science and Technology, Universitas Airlangga, Komplek
Campus C, Surabaya 60115, Indonesia

**Correspondence; Dania Ahmed, Department of biotechnology, Dow University of Health Sciences, Karachi-75270.
Email: daniaahmed48@yahoo.com*

Table S1: IR bands of Ag and Au conjugated vildagliptin and commercially available unbounded vildagliptin used as standard.

Vildagliptin	Vil-AgNPs	Vil-AuNPs
3294 cm ⁻¹ broad with medium intensity, overlapping signal of both OH and NH	3408 cm ⁻¹ broad with medium intensity, overlapping signal of both OH and NH	3400 cm ⁻¹ strong, broad overlapping signal of both OH and NH
1658 cm ⁻¹ carbonyl stretching strong and sharp	1649 cm ⁻¹ weak and broad	1627 cm ⁻¹ strong and broad
1155 cm ⁻¹ C O single bond medium ,sharp	1033 cm ⁻¹ medium broad	1029 cm ⁻¹ strong and broad
1404 cm ⁻¹ sharp strong OH bending	1382 cm ⁻¹ sharp and strong	1407 cm ⁻¹ medium broad