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Five Novel Dicyanidoaurate(I)-Based Complexes Exhibiting Significant Biological activities:

Synthesis, Characterization and Three Crystal Structures

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Supplementary data

TABLE OF CONTENTS

Fig S1	p2
Fig S2	p2
Fig S3	p3
Fig S4	p3
Fig S5	p4
Fig S6	p4
Fig S7	
Fig S8	
Fig S9	p6
Fig S10	
Fig S11	
Fig S12	
Fig S13	
Fig S14	
Fig S15	p9



Fig S1 Representation of -CN-Cu(*hydeten*)-NC-Au(1)-CN-Cu(*hydeten*)-CN- chain for **C3**. H atoms, Methanols and lattice disordered part of *hydeten* omitted for clarity.



Fig S2 Au \cdots Au aurophilic interactions in C3 running along the *a* axis.



Fig S3 12 Metal centered ring occurs by the combining of two chains.



Fig S4 Polyhedral representation of coordination around Cu1. While the Cu– N_{axial} distance much longer than the Cu– $N_{hydeten}$ bond lengths and the other examined complexes, Cu– $N_{hydeten}$ bond lengths are shorter than the others due to Jahn Teller Effect.



Fig S5 Representation of -CN-Zn(*hydeten*)-NC-Au(1)-CN-Zn(*hydeten*)-CN- chain for C4. H atoms and lattice water oxygens omitted for clarity.



Fig S6 Au \cdots Au aurophilic interactions in C4 running along the *a* axis. H atoms and water oxygens omitted for clarity.



Fig S7 12 Metal centered ring occurs by the combining of two chains.



Fig S8 Packing diagram and H-Bonds interactions of C5. Green polyhedrons represent the coordination around Cd.



Fig S9 TA Curves of C1



Fig S10 TA Curves of C2



Fig S11 TA Curves of C3



Fig S12 TA Curves of C4



Fig S13 TA Curves of C5



Fig S14 Effect of C1, C2, C3, C4 and C5 on the migration of HeLa cell line. The closure of the HeLa cell line was photographed 0, 1 and 2 days after incubation with test compounds at IC_{50} concentrations using a phase contrast microscope (Leica DMIL, Germany) until complete cell closure was observed in the untreated control. Note that antimigration effect of test compounds on the cells was more obvious at day 2.



Fig S15 The effect of test compounds on the morphology of HeLa, HT29, *C6* and Vero cells. Exponentially growing cells were incubated with IC_{50} concentrations of C1, C2, C3, C4 and C5 at 37°C for overnight and visualized by digital camera attached inverted microscope (Leica IL10, Germany). DMSO treated cells as controls. All scale is 100 μ M.