What is claimed is:

1. Use of an inhalable insulin formulation comprising human insulin and 3,6-di(fumaryl-4-aminobutyl)-2,5-diketopiperazine in the manufacture of a medicament for the treatment of hyperglycemia, wherein an initial predetermined dose of up to 90 Units of the inhalable insulin formulation is to be administered by oral inhalation at mealtime, and wherein a second dose of 25% to 100% of the initial dose is to be administered if postprandial blood glucose level is determined to be greater than 140 mg/dl 1 to 2 hours after beginning a meal.

2. Use of a combination of an ultrarapid acting insulin and a long acting insulin analog in the manufacture of a medicament for the treatment of hyperglycemia, wherein:

the ultrarapid insulin is to be administered prandially, and

a dose of the long-acting insulin analog is to be administered within 6 hours of waking for a day.

3. The use of claim 2 wherein the long acting insulin analog is to be administered within 3 hours of waking.

4. The use of claim 2 wherein the long acting insulin analog is insulin detemir or insulin glargine.

5. The use of claim 4 wherein the long acting insulin is insulin glargine and the use further comprises a second dose of insulin glargine and the second dose is to be administered from 8 to 14 hours after said morning dose.

6. The use of claim 2, wherein the ultrarapid acting insulin comprises a formulation comprising insulin and a diketopiperazine.

7. The use of claim 2 wherein the ultrarapid acting insulin comprises insulin-FDKP.

8. The use of claim 2 wherein the ultrarapid acting insulin is to be administered by inhalation into the lungs.

9. The use of claim 2 wherein the hyperglycemia is resultant of diabetes type 2.

10. Use of a combination of an ultrarapid acting insulin and an exogenous basal insulin in the manufacture of a medicament for the treatment of hyperglycemia, wherein the ultrarapid insulin is to be administered prandially, and a short acting insulin is to be continuously infused with an insulin pump.

11. The use of claim 10 wherein the short-acting insulin is regular human insulin or a rapid acting insulin analog.

12. Use of a predetermined dosage of an ultrarapid acting insulin formulation in the manufacture of a medicament for controlling glycemia related to a daily meal without adjusting an insulin dose for meal content, wherein the ultrarapid acting insulin formulation is to be administered at mealtime for each daily meal.

13. The use of claim 12 wherein meal content is ≥25% to ≤200% of a usual meal content as used in determination of the predetermined dose.

14. The use of claim 12 wherein the ultrarapid-acting insulin formulation is insulin-FDKP.

15. Use of an ultrarapid-acting insulin formulation in the manufacture of a medicament for controlling glycemia related to a daily meal for a patient with delayed or prolonged nutrient absorption, wherein:

50% to 75% of a predetermined dosage of the ultrarapid-acting insulin formulation is to be administered at mealtime for the daily meal; and

the remainder of the predetermined dosage is to be administered 30 to 120 minutes after beginning the daily meal.

16. The use of claim 15 wherein the ultrarapid acting insulin formulation is insulin-FDKP.

17. The use of claim 15 wherein the delayed nutrient absorption is related to a disease state.

18. The use of claim 15 wherein the delayed nutrient absorption is related to a meal content high in fat or fiber.

19. The use of claim 15 wherein the prolonged nutrient absorption is related to a prolonged meal.

20. Use of insulin-FDKP in the manufacture of a medicament for the treatment of a diabetic patient with subcutaneous insulin resistance selected on the basis of atypically high insulin dosage, wherein the insulin-FDKP is to be administered by prandial doses, by inhalation effective for the control of postprandial hypoglycemia, wherein treatment with subcutaneously administered rapid-, short-, or intermediate-acting insulin formulations is discontinued.

21. The use of claim 20 wherein the atypically high insulin dosage is ≥2 units/Kg/day.

22. The use of claim 20 wherein the selection further comprises selection of the basis that the patient has normal or near-normal levels of endogenous basal insulin.

23. The use of claim 22 wherein the level of endogenous basal insulin is <50 μU/ml.

24. The use of claim 20 wherein the selection further comprises selection on the basis of injection site lipoatrophy or lipodystrophy.

25. The use of claim 20 wherein the selection further comprises selection of the basis of the patient having 2 HbA1c level determinations ≥9% in a 6 to 9 month period while on an intensified insulin regimen.

26. The use of claim 20 wherein the selection further comprises selection of the basis of the patient having life threatening glycemic instability characterized by periods of hyperglycemia and/or hypoglycemia despite adherence to their insulin regimen and any diet or exercise regimen.

27. The use of claim 20 wherein the patient is confirmed to have subcutaneous insulin resistance by determining that a similar or improved degree of glycemic control is achieved with a substantially lower dosage of insulin after adjustment based on relative bioavailability.

28. A method for determining an individual's dosage of an ultrarapid acting insulin for a daily meal comprising the steps of:

administering a low dose of the ultrarapid acting insulin at mealtime for the daily meal for which the dosage is being titrated each day for at least 3 days within a titration period of not more than a week;

iteratively increasing the dosage by the amount of the low dose in each subsequent titration period and administering at mealtime for the daily meal for which the dosage is being titrated each of at least three days in the titration period until a titration endpoint is reached.

29. The method of claim 28 wherein the low dose is 1-5 subQ eq units.

30. The method of claim 28 wherein the ultrarapid acting insulin comprises insulin-FDKP.

31. The method of claim 28 wherein the titration endpoint is selected from:

1) achieving a 2-hour post-prandial median glucose is between 70 and 110 mg/dl,

2) the dosage based on subcutaneous equivalent (subQ eq) units is a maximal dosage,

3) an episode of severe hypoglycemia with a confirmed SMBG <36 mg/dl occurs and the dosage is decreased by the equivalent of one low-dose cartridge, and

4) an episode of mild to moderate hypoglycemia with a confirmed SMBG of <70 mg/dl occurs, the dosage is decreased by the equivalent of one low dose cartridge for one

week and then the titration is resumed until it reaches any of said endpoints 1-3 or the dosage is set at the level below that which again produces the mild to moderate hypoglycemia.

32. The method of claim 31 wherein the dosage for 2 or more daily meals are titrated concurrently.

33. The method of claim 31 wherein the dosage for 2 or more daily meals are titrated successively from the daily meal resulting in the highest 2-hour postprandial blood glucose to the daily meal resulting in the lowest 2-hour postprandial blood glucose.

34. The method of claim 31 wherein said maximal dosage is 24 subQ eq units.

35. The method of claim 31 wherein said maximal dosage is 32 subQ eq units.