



Fig. 98.—Necrosis and lymphocytic infiltration of an islet of Langerhans. Hematoxylin-eosin; reduced from $\times 160$. (Courtesy of Crome, L., et al Arch Dis Child 42:677-681, December, 1967.)

sodium succinate and 1 ml. nikethamide intravenously, but did not improve. Blood sugar levels were 216-136 mg./100 ml. The patient remained comatose and died 36 hours after admission.

Serums of the parents and the twin sibs were tested against thyroid, stomach and kidney. The father's serum was positive for antinuclear factor (titer 1:10); the mother's serum contained weakly positive antibodies to the thyroid cytoplasmic antigen. Histologically, the patient's thyroid showed generalized focal lymphocytic infiltration. In the pancreas, many islets of Langerhans showed lymphocytic infiltration and degenerative change (Fig. 98). The liver showed much fatty change and marked accumulation of glycogen. There was acute necrosis of the granular layer of the cerebellum.

A possible correlation between diabetes mellitus and thyroiditis suggests alertness to the possibility of thyroiditis and hypothyroidism during management of diabetes in children.

► [Traditional last comment, I'm going to relax—and I fervently hope that the whole world relaxes with me.—Ed.]

DAVID HIRSHBERG, M.D., AND DAVID J. COHEN, M.D.

SUBJECT INDEX

A

Acromegaly: proton beam therapy in, 36

ACTH

(*See also Corticotrophin*)

aldosterone and, 269 ff.

deficiency, and hypoglycemia, 280

mechanisms of (in rat), 249

renin and, 270

-secreting tumors, 372

secretion capacity after multiple sclerosis therapy, 252

synthetic derivative, adrenocorticotrophic effect, 250

Addison's disease

idiopathic, and ovarian failure, 387

juxtaglomerular apparatus in, 267

serology, 264

Adenoma

bronchi, causing Cushing's syndrome, 376

islet cell, in newborn, 241

parathyroid

diagnosis of, 89

parathyroid hormone after surgery of, 85

in Sipple's syndrome, 137

pituitary, 176

amenorrhea-galactorrhea and, 14

prolactin, 14

Adenomatosis: multiple endocrine, 362

Adenosine-3'5'-cyclic monophosphoric acid: and growth hormone (in monkey), 19

Adenyl cyclase: and thyroid hormones (in rat), 152

ADH (*see Antidiuretic hormone*)

Adipose cell size and tissue insulin sensitivity, in obesity, 361

Adipsia: potomanic picture evolving into, 50

Adrenal(s)

cortex, 249 ff.

effects of synthetic corticotrophin derivative, 250

failure in panhypopituitarism, 262

hormone (*see ACTH*)

insufficiency, ovarian insufficiency and hypoparathyroidism, 385

tumors (*see Tumors*)

function, 11 ff.

aminoglutethimide and Cushing's syndrome, 261

test, 11

test, in pituitary tumors, 13

vasopressin and, 9

ganglioneuroma, and diarrhea, 286

hyperplasia (*see Hyperplasia*)

medullary unresponsiveness to insulin-induced hypoglycemia, in children, 280

Adrenalectomy: for Cushing's syndrome, myopathy and pigmentation after, 257

Adrenalin (*see Epinephrine*)

Adrenaline, 283 ff.

carcinoid syndrome and, 284

production by pheochromocytoma, 283

Adrenergic receptor: and growth hormone, 20

Albumin ^{131}I , in scintiscan in diabetes, 234

Alcohol

diabetes and phenformin, 229

hypoglycemia and, irreversible, 238

Aldosterone, 269 ff.

ACTH and, 269 ff.

activity after renal transplant, 266

deficiency, familial, 272

melatonin and 5-hydroxytryptamine (in rat), 271

Aldosteronism

juxtaglomerular apparatus hyperplasia and, 277

primary, ACTH, aldosterone, and renin, 270

Aldosteronopenia: and pseudoaldosteronism, 273

Alkalosis: hypokalemic, hyperadrenocorticism and prostatic carcinoma, 375

Amenorrhea

-galactorrhea

hypothyroidism and, 388
 pituitary adenoma and, 14
 gynecography in, 302
 MSH and, 291
 after oral contraception, 315
Amine-peptide-secreting tumors and
 prostaglandins, 143
Amino acid
 glucagon and, 245
 of neurohypophyseal hormones, 43
 sequence of thyrocalcitonin (in
 swine), 116
Aminoglutethimide: in Cushing's
 syndrome, 261
Amyloid
 -forming medullary carcinoma, of
 thyroid, 127
 solid thyroid medullary carcinoma
 and, 144
 stroma
 in Sipple's syndrome, 137
 thyroid medullary carcinoma
 and motor diarrhea, 139
Androgen
 polycystic ovary syndrome and,
 310
 treatment, and pineal (in rat), 63
 gonads, 65
 reproductive organ size, 63
Androgenic adrenal hyperplasia and
 hirsutism, 308
Androgenic function, 320
Anemia. pernicious, candidiasis and
 endocrinopathy, 386
Anephric humans: renin-like enzyme
 in, 265
Antibiotics for diabetic diarrhea,
 223
Antibody thyroid-stimulating anti-
 thyroid (in rabbit), 147
Antidiuretic hormone
 inappropriate secretion, 58 ff
 polyneuropathy and, 58
 ventriculoatrial shunt obstruc-
 tion causing, 59
 water and solute transport, 47
Anovulatory cycles: environmental,
 304
Arginine and growth hormone se-
 cretion, 22
Arteries coronary, disease, and
 myxedema, 177
Atromid in diabetic retinopathy,
 228
Atrophy optic, and juvenile dia-
 betes, 224

B

Baldness and testosterone, 329
Bartter's syndrome, 277
Basement membranes diabetes and
 prediabetes, 199
Behavior, 331 ff
 estrogen and (in monkey), 331
 sexual, delayed fertilization and
 mongolism, 333
Bitter taste. in pseudohypoparathy-
 roidism, 105
Bladder pheochromocytoma of, 282
Bone age in growth failure, and
 oxandrolone, 334
Breast, 39 ff.
 cancer, osteolytic sterols in, 113
 development
 milking stimulus and (in goat),
 41
 during pregnancy, and self-lick-
 ing (in rat), 39
Bronchi
 adenoma, causing Cushing's syn-
 drome, 376
 cancer (see Cancer)
 carcinoid tumor, insulin-secreting,
 365

C

Calciferol in surgical hypoparathy-
 roidism, 110
Calcification basal ganglia, hypo-
 parathyroidism and extrapy-
 ramidal manifestations, 108
Calcinosis tumoral, and hyperphos-
 phatemia, 115
Calcitonin (see Thyrocalcitonin)
Calcium
 hyperparathyroidism and hyper-
 calciuria, 80
 transport in hypothyroidism (in
 rat), 178
Cancer, 374 ff.
 breast, osteolytic sterols in, 113
 bronchi, growth hormone and os-
 teoarthropathy in, 374
 bronchogenic, gonadotrophin se-
 cretion from, 381
 endometrium, and hypothalamo-
 pituitary hyperactivity, 289
 metastases
 insulin-secreting bronchial car-
 cinoid tumor, 365
 parathyroid, parathyroid hor-
 mone in, 87

- thyroid (*see thyroid below*)
ovary, producing hypercalcemia, 384
parathyroid
 hypercalcemia and thyrocalcitonin, 124
 metastatic, parathyroid hormone in, 87
prostate, alkalosis and hyperadrenocorticism, 375
stomach, containing insulin, and hypoglycemia, 366
thyroid, 187 ff., 377 ff.
 chemodectoma and, 379
 Cushing's syndrome and, 377
 incidence study, 190
 medullary carcinoma (*see below*)
 metastatic, hyperthyroidism and, 187
 papillary carcinoma, metastasis from, 189
 after radiotherapy in childhood, 185
 therapy results, long-term, 191
thyroid, medullary carcinoma, 127
amyloid-forming, fine structure of, 127
amyloid stroma and motor diarrhea in, 139
Cushing's syndrome due to, 138
familial, monoamines and pheochromocytoma, 142
granules and thyrocalcitonin-like activity in, 131
granules in, secretory, 130
in multiple endocrine neoplasia, type 2, 136
parafollicular cell and carcinoid tumors, 140
prostaglandin and amine peptide, 143
prostaglandin and diarrhea, 141
in Sipple's syndrome, 137
solid, amyloid and, 144
solid, hormone-induced regression, 145
thyrocalcitonin excessive production in, 133
thyrocalcitonin secretion in, 135
Candidiasis, endocrinopathy and pernicious anemia, 386
Carbohydrate
 intolerance, of obesity, 361
metabolism, and oral contraception, 314
Carbon-19 steroids: and polycystic ovary syndrome, 311
Carcinoid syndrome: and adrenaline, 284
Carcinoid tumors
 insulin-secreting bronchial, 365
 thyroid medullary carcinoma and, 140
Carcinoma (*see Cancer*)
CBC, 254
Cell(s)
 adipose, size, and obesity, 361
 chief, hyperplasia of, diagnosis, 89
 parafollicular, and thyroid medullary carcinoma, 140
 pituitary tumor, secreting growth hormone (in rat), 18
 thyroid parafollicular, ultrastructure (in cattle), 125
Cerebrum
 edema (*see Edema*)
 gigantism, 34
Chemodectoma: and thyroid carcinoma, 379
Children
 diabetes mellitus, insulin and growth hormone, 208
 growth retardation, growth hormone, and hypoglycemia, 30
 hypoglycemia and ACTH deficiency, 280
 infant, four stem-line mosaicism and ambiguous genitalia, 348
 newborn
 adenoma of, islet cell, 241
 estriol assays to save babies, 301
 prostaglandins and umbilical and placental vessels, 302
 premature signs of puberty and estrogen, in boy, 336
 radiotherapy of, thyroid cancer after, 185
Chlorpropamide
 diabetes insipidus and, 56
 hypernatremia and, 52
Chromosomes, 348 ff.
 gross errors, in tall male criminals, 349
 mosaicism, four stem-line, and ambiguous genitalia, in infant, 348
 sex, 47 XYY, and urinary gonadotrophin abnormalities, 350
 sex chromosome derived heterochromatin (in mammals), 340

Circadian periodicity of 11-OHCS levels, 8

Cirrhosis: estradiol metabolism in, 294

Coma: hyperglycemia, in diabetes, 230

Contraception, oral, 313 ff
amenorrhea after, 315
carbohydrate metabolism and, 314
thromboembolic disease and, 313

Corticoids (*see* Corticosteroids)

Corticosteroids
(*See also* Steroids)
lysine-vasopressin and, 10
suppressing growth hormone, 23

Corticosterone
melatonin and 5-hydroxytryptamine (in rat), 271
-secreting adrenocortical tumor, 258

Corticotrophin (*see* ACTH)

Cortisol
aminoglutethimide and Cushing's syndrome, 261
-binding capacity, 254

Cretinism: familial goitrous, and muscular hypertrophy, 178

Cryptorchism: hyper- and hypoglycemia and testis function (in rabbit), 319

Cushing's syndrome, 376 ff.
adrenalectomy for, myopathy and pigmentation after, 257
aminoglutethimide in, 261
bronchial adenoma causing, 376
in multiple endocrine neoplasia, type 2, 136
"nonendocrine" tumors and, 371
screening test for, 250
thyroid carcinoma and, 377
thyroid medullary carcinoma causing, 138

Cyproterone: pituitary and ICSH (in rat), 322

D

Death: sudden, during diabetic ketoacidosis therapy, 232 ff.

2-Deoxy-D-glucose: and lipid mobilization, 355

Dexamethasone-suppressible adrenocortical tumor, 260

Diabetes, chemical: case review, 219

Diabetes insipidus, 53 ff.
chlorpropamide in, 56

during diabetic ketoacidosis therapy, 232

excessive drinking in, 48

hypothalamic, and vasopressin, 55

pregnancy and, 53 ff
vasopressin and, 44

Diabetes mellitus, 199 ff, 220 ff
coma in, hyperglycemia nonketotic, 230
diarrhea of, antibiotics for, 223
factitious hypoglycemia in, 234
fulminating, and lymphocytic thyroiditis, 389
growth hormone and, 24
in children, 208
insulin and, in children, 208
insulin-dependent, 230
insulin response to glucose, 202
juvenile
insulitis in, 201
optic atrophy and, 224
prognosis, 220

ketoacidosis and (*see* Ketoacidosis)

muscle capillary basement membranes and, 199

neuropathy (*see* Neuropathy)

pathogenesis, and obesity, 359

phenformin, alcohol, and hyperlactatemia, 229

prediabetes (*see* Prediabetes)

retinopathy (*see* Retinopathy)

shin spots of, 200

sorbitol and (in rat), 214

Diarrhea
adrenal ganglioneuroma and, 286
diabetic, antibiotics for, 223
motor, amyloid stroma and thyroid medullary carcinoma, 139
prostaglandin and thyroid medullary carcinoma, 141

Diazoxide in islet cell adenoma, in newborn, 241

Digitalis and gonadotrophin, 290

Drinking (*see* Water drinking)

Duodenal transplant: (in dog), 216

Dwarfism, pituitary, familial, 25 ff
spontaneous puberty in, 25

Dysgenesis (*see* Gonadal dysgenesis)

Dystrophy: myotonic, insulin secretion in, 213

E

Edema
cerebral

- during diabetic ketoacidosis therapy, 232
during hypoglycemia therapy (in dog), 215
idiopathic, 274 ff.
 approach to patient with, 276
 renin and hyperaldosteronism, 274
Electrodiagnosis: of myxedema myopathy, 180
Electron microscopy
 hypoglycemia and hemangiopericytoma, 369
 secretory granules in thyroid medullary carcinoma, 130
 shin spots of diabetes mellitus, 200
Endocrine
 adenomatosis, multiple, 362
 neoplasia, type 2, multiple, 136
 tests, in hypothalamic disease, 8
Endocrinopathy
 candidiasis and pernicious anemia, 386
 pineal tumor and, 71
Endometrial carcinoma and hypothalamopituitary hyperactivity, 289
Environmental anovulatory cycles, 302
Enzymes: in pregnenolone biosynthesis and adrenal hyperplasia, 338
Epinephrine
 growth hormone secretion and (in monkey), 19
 hyperglycemia, and spinal cord section (in dog), 279
Estradiol
 β , and adrenocortical hyperplasia (in rat), 338
 metabolism, in cirrhosis, 294
Estriol assays: to save babies, 301
Estrogen, 335 ff.
 behavior and (in monkey), 331
 mature height in tall girls and, 335
 menstrual cycle and LH, 292
 polycystic ovary syndrome and, 311
 premature signs of puberty and, in boy, 336
Ethanol: postpartum uterine activity and suckling, 38
Eunuch
 “fertile eunuch” syndrome, 327
 gonadotrophin and FSH in, 325
Exophthalmos: orbital decompression in, 173
Extrapyramidal motor manifestations: basal ganglia calcification and hypoparathyroidism, 108
Eye signs of thyroid dysfunction: guanethidine for, 174
Eyelid retraction: guanethidine for, 174

F

Fatty acid
 free, and thyroid hormones (in rat), 152
 insulin and, 352
metabolism, hypoglycemia and extrapancreatic tumors, 368
“Fertile eunuch” syndrome, 327
Fertilization: delayed, mongolism and sexual behavior, 333
Fever: and hypoglycemia, 236
FFA flux: and insulin, 352
Fingerprints: medical significance of, 342
Follicle-stimulating hormone
 eunuchoid men and, 325
 releasing factor, 287
FSH (*see* Follicle-stimulating hormone)

G

Galactorrhea-amenorrhea
 hypothyroidism and, 388
pituitary adenoma and, 14
Ganglia: basal, calcification, hypoparathyroidism and extrapyramidal manifestations, 108
Ganglioneuroma, adrenal, and diarrhea, 286
Gastrin: and ACTH-secreting tumors, 372
Genitalia: ambiguous external, and four stem-line mosaicism, in infant, 348
Germinoma suprasellar, 70
Gigantism: cerebral, 34
Globulin deficiency: thyroxin-binding, in Turner's syndrome, 161
Glucagon, 242 ff.
 ACTH-secreting tumors and, 372
 amino acids and, 245
 -like immunoreactivity, to glucose, 244
 secretin and, 242
 test
 in insulinoma, 239

SUBJECT INDEX

in pheochromocytoma, 281
Glucocorticoids. (in rat), 247
Glucose, 205 ff.
 2-deoxy-D-, and lipid mobilization, 355
 glucagon-like immunoreactivity to, 244
 insulin and growth hormone after, in prediabetes, 206
 insulin response to, in diabetes, 202
 intolerance after hypoglycemia, 205
 metabolism, hypoglycemia and extrapancreatic tumors, 368
 tolerance, and insulin insensitivity, 210
Glycoprotein synthesis: and steroids (in rat), 247
Glycosaminoglycan synthesis and thyrocalcitonin, 121
 Goiter during lithium therapy, 163
 Gonad(s) pineal and androgen treatment (in rat), 65
 Gonadal dysgenesis, 345 ff
 male pseudohermaphroditism and, in sisters, 346
 in phenotypic females, case review, 345
 premature menopause and, 305
 Gonadoblastoma, 297
 Gonadotrophin, 380 ff.
 chorionic, 323 ff.
 eunuchoid men and, 325
 -dependent Krukenberg tumor, 382
 oligospermia and, 323
 pituitary, and digitalis, 290
 secretion, 380 ff.
 from bronchogenic carcinoma, 381
 teratoma and, mediastinal, 380
 urinary, abnormalities, and 47-XYY sex chromosome constitution, 350
 Grafts thyroid, autologous and allogenic (in dog), 164
 Granules. in thyroid medullary carcinoma, 130 ff.
 Granulosa cell tumor, 311
 Graves' disease ophthalmopathy and LATS, 148
 Growth failure: idiopathic, and oxandrolone, 334
 Growth hormone, 7 ff., 18 ff., 28 ff., 206 ff.
 adrenergic receptor and, 20
 in African pygmy, 28

bronchial carcinoma and osteoarthropathy, 374
 diabetes mellitus and hypopituitarism, 24
 diabetes mellitus and, in children, 208
 growth retardation and hypoglycemia, in children, 30
 hypoglycemia and, insulin, 8
 insulin levels and (in pig), 357
 lysine-vasopressin and, 10
 pharyngeal hypophyses and, 7
 prediabetes and, 206
 secretion, 18 ff.
 adrenalin, pitressin, and 3'-5'-AMP (in monkey), 19
 arginine and, 22
 by pituitary tumor cells (in rat), 18
 in protein-calorie malnutrition, 29
 suppression with corticosteroids, 23
 Growth retardation: hypoglycemia and growth hormone, in children, 30
 Guanethidine for eye in thyroid dysfunction and lid retraction, 174
 Gynecography. in amenorrhea, 302
 Gynecomastia
 complicating hemodialysis, 328
 hyperthyroidism and, 168

H

Height: mature, in tall girls, and estrogen, 335
 Hemangiopericytoma: and hypoglycemia, 369
 Hemodialysis. gynecomastia complicating, 328
 Hemorrhage: pancreatitis and parathyroid hyperplasia, 95
 Heterochromatin: sex chromosome derived (in mammals), 340
 Hirsutism: and androgenic adrenal hyperplasia, 308
 Histamine test: in pheochromocytoma, 281
 Hormone(s)
 adrenal (see ACTH)
 antidiuretic (see Antidiuretic hormone)
 β -lipotropic (in lamb), 5
 follicle-stimulating (see Follicle-stimulating hormone)

- genesis of glucose intolerance after hypoglycemia and, 205
growth (*see* Growth hormone)
hormonal profile in obesity, 358
 ^{131}I , thyroid release, and vagus nerve (in dog), 153
inducing regression of solid thyroid medullary carcinoma, 145
interstitial-cell stimulating, and cyproterone (in rat), 322
luteinizing (*see* Luteinizing hormone)
melanocyte-stimulating, and amenorrhea, 291
neurohypophysial, amino acid of, 43
parathyroid (*see* Parathyroid)-releasing intrauterine devices, 316
thyroid (*see* Thyroid)
Hyaluronic acid: and myxedema, 149
Hydrochlorothiazide: in hypernatremia, 52
4-Hydroxy-3, 5-diiodophenylpyruvic acid: in thyroid (in rat), 150
 3β -Hydroxysteroid dehydrogenase: and adrenocortical hyperplasia (in rat), 338
5-Hydroxytryptamine: aldosterone and corticosterone (in rat), 271
Hyperadrenocorticism: prostatic carcinoma and alkalosis, 375
Hyperaldosteronism: renin and edema, 274
Hypercalcemia
 calcitonin and, 122 ff.
 parathyroid carcinoma, 124
 ovarian carcinoma producing, 384
 parathyroid and magnesium depletion (in rat), 75
Hypercalciuria: calcium and hyperparathyroidism, 80
Hyperglycemia
 coma and diabetes, 230
 cryptorchidism and testis function (in rabbit), 319
 epinephrine, and spinal cord section (in dog), 279
 pituitary LMF and, 6
 therapy, cerebral edema during (in dog), 215
Hyperlactatemia: diabetes and phenformin, 229
Hyperlipoproteinemia: type III and IV familial, 353
Hypernatremia: hypodipsia and vasopressin, 52
Hyperparathyroidism, 88 ff., 91 ff
 familial, 93
 medullary sponge kidney and, 100
 in multiple endocrine neoplasia, type 2, 136
 normocalcemic, 81
 pancreatic insufficiency in, 96
 primary
 hypercalciuria and calcium, 80
 myopathy in, 94
 osteogenesis imperfecta and, 97
 phosphate intake in, 83
 rickets and, vitamin D-resistant, 112
 sarcoidosis and, 98
 tertiary, 91
Hyperphosphatemia: and tumoral calcinosis, 115
Hyperplasia
 adrenal, 338 ff.
 androgenic, and hirsutism, 308
 cortex, estradiol- 17β and 3β -hydroxysteroid dehydrogenase (in rat), 388
 enzyme in pregnenolone biosynthesis and, 338
 chief cell, diagnosis of, 89
 juxtaglomerular apparatus, 277
 nodular, of pituitary, 176
 parathyroid
 hemorrhagic pancreatitis and, 95
 parathyroid hormone after surgery of, 85
Hypertension
 essential, ACTH, aldosterone, and renin, 270
 pseudoaldosteronism and, 273
Hyperthyroidism, 168 ff
 gynecomastia and, 168
 hypopituitarism after ^{90}Yt therapy, 183
 therapy, leukemia after, 170
 thyroid metastatic carcinoma and, 187
Hypertrophy: muscular, and cretinism, 178
Hypocalcemia: and parturient paresis (in cattle), 125
Hypodipsia: hypernatremia and vasopressin, 52
Hypoglycemia, 234 ff., 366 ff.
 ACTH deficiency and, 280

cryptorchism and testis function (in rabbit), 319
 extrapancreatic tumors and, 368
 factitious, in diabetes, 234
 fever in, 236
 gastric cancer containing insulin and, 366
 glucose intolerance after, 205
 growth hormone and retardation, in children, 30
 hemangiopericytoma and, 369
 insulin, 11-OHCS and growth hormone, 8
 insulin-induced, adrenal medullary unresponsiveness to, in children, 280
 irreversible, alcohol and insulin, 238
Hypogonadism and pituitary enlargement, 326
Hypohyperparathyroidism, 101
Hypokalemia and pseudoaldosteronism, 273
Hypokalemic alkalosis in hyperadrenocorticism and prostatic carcinoma, 375
Hyponatremia in polyneuropathy, 58
Hypoparathyroidism, 106 ff.
 basal ganglia calcification and extrapyramidal manifestations, 108
 familial idiopathic, 102
 ovarian and adrenocortical insufficiency, 385
 surgical
 calciferol in, 110
 crystalline lens in, 106
Hypophysectomy
 diabetic retinopathy and, 17, 227
 melatonin, 5-hydroxytryptamine, aldosterone, and corticosterone (in rat), 271
Hypophyses: pharyngeal, prolactin and growth hormone, 7
Hypopituitarism
 growth hormone and, 24
 after ⁹⁰Yt therapy of hyperthyroidism, 183
Hypothalamus, 287 ff.
 disease, endocrine tests in, 8
 FSH-RF, 287
 function, test, 11
 hyperactivity and endometrial carcinoma, 289
Hypothyroidism, 181 ff.
 amenorrhea and galactorrhea, 388

calcium transport in (in rat), 178
 congenital, and thyrotrophin, 182
 Parkinson's disease presenting as, 181

I

ICSH and cyproterone (in rat), 322
 Immunoassay and "big insulin," 194
 Immunoreactivity glucagon-like, to glucose, 244
 Infant four stem-line mosaicism and ambiguous genitalia, 348
Insulin, 194 ff., 202 ff., 206 ff.
 absorption from intestine, 217 ff.
 adipose tissue, sensitivity, and obesity, 361
 "big," 194
 -dependent diabetes, 230
 diabetes mellitus and, in children, 208
 FFA flux and TGFA influx, 352
 gastric cancer containing, and hypoglycemia, 366
 hypoglycemia and, irreversible, 238
 hypoglycemia due to adrenal medullary unresponsiveness to, in children, 280
 11-OHCS and growth hormone, 8
 insensitivity, and glucose tolerance, 210
 levels, and growth hormone (in pig), 357
 prediabetes and, 206
 release, early phase of, 204
 reserve, in pancreatitis, 211
 response to glucose in diabetes, 202
 secretion, 195 ff.
 by bronchial carcinoid tumor, 365
 dynamics, in myotonic dystrophy, 213
 dynamics (in rat), 197
 methacholine and, 198
 new hypothesis, 195
Insulinoma: glucagon test for, 239
Insulitis in juvenile diabetes, 201
Interstitial-cell stimulating hormone and cyproterone (in rat), 322
Intestine insulin absorption from, 217 ff.
Intraocular pressure: hypophysectomy and diabetic retino-

pathy, 227
 Intrauterine devices: hormone-releasing, 316
 Iodine: thyroxin, determination of, 158
 Iodine-131, 171 ff.
 labeling albumin, in scintiscan in diabetes, 234
 labeling hormones, and vagus nerve (in dog), 153
 therapy of thyrotoxicosis, delay in control of, 172
 thyrotoxicosis and, 171
 Islet cell tumor: streptozotocin for, 370

J

Juxtaglomerular apparatus
 Addison's disease and, 267
 hyperplasia with aldosteronism, 277

K

Ketoacidosis, diabetic, 230 ff.
 pituitary stalk section and, 230
 therapy
 cerebral edema and diabetes insipidus during, 232
 sudden death during, 232 ff.

Kidney
 medullary sponge, and hyperparathyroidism, 100
 transplant, renin and aldosterone after, 266

Kinin levels in carcinoid syndrome, 284

Klinefelter's syndrome: spermatogenesis in, 351

Krukenberg tumor: gonadotrophin-dependent, 382

L

Lactation, 42 f.
 milk ejection in, exteroceptive stimulus of (in rat), 43
 after thoracotomy, 42

Lactogen: placental, 299

LATS: and Graves' disease ophthalmopathy, 148

Lens: crystalline, in surgical hypoparathyroidism, 106

Leucine-oxytocin, 46
 Leukemia: after hyperthyroidism therapy, 170

LH (*see* Luteinizing hormone)
 Licking self-, and mammary development during pregnancy (in rat), 39
 Licorice-induced pseudoaldosteronism, 273
 Lid retraction: guanethidine for, 174
 Lipid
 mobilization, and 2-deoxy-D-glucose, 355
 -mobilizing factor, pituitary, 6
 β -Lipotropic hormone: (in lamb), 5
 Lithium therapy: goiter during, 163
 Liver: "puberty" of, and testosterone (in rat), 317
 LMF: pituitary, 6
 Luteinizing hormone
 deficiency, and "fertile eunuch" syndrome, 327
 estrogen and menstrual cycle, 292
 pineal and melatonin (in rat), 66
 Lymphocytic infiltration: of thyroid in thyrotoxicosis, 166
 Lymphocytic thyroiditis: and diabetes, 389
 Lysine-vasopressin: corticosteroids and growth hormone, 10

M

Magnesium
 depletion, parathyroid and hypercalcemia (in rat), 75
 neurohypophysial hormones and, 43

Malnutrition: protein-calorie, and growth hormone, 29

Mammary development (*see* Breast)

Mediastinal teratoma: and gonadotrophin secretion, 380

Melanocyte-stimulating hormone: and amenorrhea, 291

Melanotrophin: and ACTH-secreting tumors, 372

Melatonin
 aldosterone and corticosterone (in rat), 271

pineal and LH (in rat), 66

Menopause: premature, and gonadal dysgenesis, 305

Menstrual cycle: LH and estrogen, 292

Menstruation: pneumothorax during, 307

Metastases (*see* Cancer)
 Methacholine and insulin secretion, 198

Metyrapone and insulin hypoglycemia, 88
 Microscopy (*see* Electron microscopy)
 Microsurgery hypophysectomy in diabetic retinopathy, 17
 Milk ejection in lactation, exteroceptive stimulus of (in rat), 43
 Milking stimulus and mammary growth (in goat), 41
 Mitochondrial metabolism and parathyroid hormone, 73
 Mongolism delayed fertilization and sexual behavior, 333
 Monoamines in medullary thyroid carcinoma, 142
 Mosaicism four stem-line, and ambiguous genitalia, in infant, 348
 MSH and amenorrhea, 291
 Muscle
 capillary basement membranes, diabetes and prediabetes, 199
 hypertrophy, and cretinism, 178
 Myopathy, 255 ff.
 hyperparathyroidism and, 94
 myxedema, 180
 pigmentation and Cushing's syndrome, 257
 steroid, 255
 Myotonic dystrophy insulin secretion in, 213
 Myxedema
 coronary artery disease and, 177
 hyaluronic acid and, 149
 myopathy, 180

N

Nerves vagus, and ^{131}I -hormones (in dog), 153
 Neurohypophysial hormones: amino acid of, 43
 Neuropathy, diabetic, 222 ff.
 prognosis in, short-term, 222
 retrograde semen ejaculation due to, 223
 Newborn (*see* Children)
 Norepinephrine and ACTH-secreting tumors, 372

O

Obesity, 358 ff.
 carbohydrate intolerance of, 361
 diabetes pathogenesis and, 359
 hormonal profile in, 358

11-OCHS and insulin hypoglycemia, 8
 Olfaction impairment in pseudohypoparathyroidism, 105
 Oligospermia gonadotrophin in, 323
 Ophthalmopathy in Graves' disease and LATS, 148
 Optic atrophy and juvenile diabetes, 224
 Oral contraception (*see* Contraception)
 Orbital decompression in exophthalmos, 173
 Osteoarthropathy in bronchial carcinoma, 374
 Osteogenesis imperfecta and hyperparathyroidism, 97
 Ova transport in oviduct (in mice), 296
 Ovaries, 384 ff.
 carcinoma, producing hypercalcemia, 384
 failure, and Addison's disease, 387
 insufficiency, adrenocortical insufficiency, and hypoparathyroidism, 385
 polycystic syndrome, 310 ff.
 androgens and, 310
 C₁₉-steroids and estrogen, 311
 Oxandrolone and idiopathic growth failure, 334
 Oxidative phosphorylation: in thyrotoxic patients, 165
 Oxytocin 4-leucine, 46

P

Paget's disease and calcitonin, 122
 Pancreas
 insufficiency, in hyperparathyroidism, 96
 insulin reserve in, 211
 hemorrhagic, and parathyroid hyperplasia, 95
 transplant (in dog), 216
 Panhypopituitarism adrenocortical failure in, 262
 Parafollicular cells and thyroid medullary carcinoma, 140
 Parathormone (*see* Parathyroid hormone)
 Parathyroid, 72 ff., 85 ff.
 adenoma (*see* Adenoma)
 cancer (*see* Cancer)
 hormone, 72 ff.
 ACTH-secreting tumors and, 372

- concentration after surgery for adenoma and hyperplasia, 85 mitochondrial metabolism and, 73 production by metastatic parathyroid carcinoma, 87 production, simian virus 40 and, 72 pseudohypoparathyroidism and, 103 hypercalcemia and magnesium depletion (in rat), 75 hyperplasia, and hemorrhagic pancreatitis, 95 in vivo staining, 78 -like activity of urinary polypeptides, 86 origin of calcitonin and, 117 scans, with selenomethionine-Se⁷⁵, 77 ultrastructure (in cattle), 125 Paresis: parturient, and hypocalcemia (in cattle), 125 Parkinson's disease: presenting as hypothyroidism, 181 "Periodic swelling" (*see* Edema, idiopathic) Pharyngeal hypophyses: prolactin and growth hormone, Phenformin: in diabetes, alcohol and hyperlactatemia, 229 Pheochromocytoma, 136 ff., 281 ff. bladder, 282 histamine and glucagon tests in, 281 intrathoracic, adrenaline production by, 283 in multiple endocrine neoplasia, type 2, 136 in Sipple's syndrome, 137 thyroid medullary carcinoma and monoamines, 142 Pheromones and sexual status (in primates), 330 Phosphate intake in hyperparathyroidism, 83 Photoperiodicity: and multiple pregnancy, 67 Pigmentation after adrenalectomy in Cushing's syndrome, 257 Pigmy African, growth hormone in, 28 Pineal, 61 ff. androgen and (in rat), 63 ff. gonads, 65 reproductive organ size, 63 central control (in rat), 61 melatonin and LH (in rat), 66 region, sinus tumor from, 69 tumor, and endocrinopathy, 71 Pitressin: and growth hormone secretion (in monkey), 19 Pituitary, 11 ff., 289 ff. adenoma amenorrhea-galactorrhea and, 14 nodular hyperplasia and, 176 cyproterone and (in rat), 322 dwarfism, familial, 25 ff. spontaneous puberty in, 25 enlargement, and hypogonadism, 326 function, 11 ff. test, 11 test, in pituitary tumors, 13 vasopressin and, 9 gonadotrophin digitalis and, 290 oligospermia and, 323 hyperactivity, and endometrial carcinoma, 289 lipid-mobilizing factor, 6 stalk section, and diabetic ketoacidosis, 230 tumors (*see* Tumors) Pneumothorax: and menstruation, 307 Polycystic ovaries (*see* Ovaries) Polydipsia: primary, 49 Polyneuropathy: hyponatremia in, 58 Polypeptides: urinary, with parathyroid-like activity, 86 Polyuropolydipsia syndrome: evolving into adipisia, 50 Potomanic picture evolving into adipisia, 50 Prediabetes growth hormone and insulin after tolbutamide and glucose, 206 muscle capillary basement membranes and, 199 Prednisone: and vitamin D metabolism, 111 Pregnancy diabetes insipidus and, 53 ff. mammary development and self-licking (in rat), 39 multiple, and photoperiodicity, 67 virilization during, due to Krukenberg tumor, 382 Pregnenolone biosynthesis enzyme in, and adrenal hyperplasia, 338

- Proinsulin in urine and serum, 192
 Prolactin
 activity, in pharyngeal hypophyses, 7
 adenoma, 14
 Propranolol in thyrotoxicosis, 171
 Prostaglandin
 amine-peptide-secreting tumors and, 143
 thyroid medullary carcinoma and diarrhea, 141
 umbilical and placental vessels and, 302
 Prostatic carcinoma alkalosis and hyperadrenocorticism, 375
 Protein
 binding of thyroxin, and sulfonylureas (in rat), 157
 -calorie malnutrition, and growth hormone, 29
 synthesis, and thyroid hormones, 151
 Proton beam therapy in acromegaly, 36
 Pseudoaldosteronism licorice-induced, 273
 Pseudohermaphroditism: male, and gonadal dysgenesis, in sisters, 346
 Pseudohypoparathyroidism, 103 ff.
 familial, parathyroid hormone and thyrocalcitonin, 103
 olfaction impairment and sour and bitter tastes in, 105
 Pterygium colli in Turner's syndrome, 343
 Puberty
 of liver, and testosterone (in rat), 317
 premature signs, and estrogen, in boy, 336
 spontaneous, in pituitary dwarfism, 25
- R
- Radioimmunoassay
 gonadotrophin, in bronchogenic carcinoma, 381
 in LH deficiency, 327
 Renin, 265 ff., 273 ff.
 ACTH and, 270
 activity after renal transplant, 266
 idiopathic edema and hyperaldosteronism, 274
 -like enzyme in anephric humans, 265
- pseudoaldosteronism and, 273
 Reproductive organ size androgen treatment and pineal (in rat), 63
 Retinopathy, diabetic, 225 ff.
 Atromid in, 228
 hypophysectomy in
 intraocular pressure and, 227
 microsurgical, 17
 natural history of, 225
 Rickets vitamin D-resistant, and hyperparathyroidism, 112
 Roentgenography: childhood therapy, thyroid cancer after, 185
- S
- Sarcoidosis and hyperparathyroidism, 98
 Secretin and glucagon, 242
 Scanning parathyroid, with selenomethionine-Se⁷⁵, 77
 Scintiscanning albumin-¹³¹I, in diabetes, 234
 Sclerosis: multiple, corticotrophin secretion capacity after therapy of, 252
 Selenomethionine-Se⁷⁵ in parathyroid scans, 77
 Sella turcica "empty," 15
 Semen retrograde ejaculation, due to diabetic neuropathy, 223
 Serotonin and ACTH-secreting tumors, 372
 Sex chromosome (see Chromosomes)
 Sexual behavior delayed fertilization and mongolism, 333
 Sexual status and pheromones (in primates), 330
 Shin spots: of diabetes mellitus, 200
 Shunt: ventriculoatrial, obstruction causing ADH inappropriate secretion, 59
 Simian virus 40: and parathyroid hormone, 72
 Sinus tumor from pineal region, 69
 Sipple's syndrome, 137
 Sorbitol and diabetes (in rat), 214
 Sour taste: in pseudohypoparathyroidism, 105
 Spermatogenesis: in Klinefelter's syndrome, 351
 Spinal cord section and epinephrine hyperglycemia (in dog), 279
 Stein-Leventhal syndrome: hereditary factors in, 312

- Steroids
(See also Corticosteroids)
 C_{18} , and polycystic ovary syndrome, 311
 contraceptive (*see* Contraception)
 glycoprotein synthesis and (in rat), 247
 myopathy due to, 255
 Sterols osteolytic, in breast cancer, 113
 Stomach cancer: containing insulin, and hypoglycemia, 366
 Stioptozotocin: in islet cell tumors, 370
 Stroma (*see* Amyloid stroma)
 Subarachnoid space: intrasellar, 15
 Suckling: ethanol and postpartum uterine activity, 38
 Sulfonylureas thyroid and thyroxin (in rat), 157
 Swelling (*see* Edema)
- T
- Technetium-99m pertechnetate assessment: of thyroid function, 160
 Teratoma mediastinal, and gonadotrophin, 380
 Testicular function: cryptorchism, hyper- and hypoglycemia (in rabbit), 319
 Testosterone, 317 ff.
 antagonist, pituitary and ICSH (in rat), 322
 baldness and, 329
 binding in plasma, 318
 "puberty" of liver and (in rat), 317
 TGFA influx and insulin, 352
 Thoracotomy. lactation after, 42
 Thorotrast thyroid disease after, 167
 Thromboembolic disease: and oral contraception, 313
 Thymus and calcitonin origin, 117
 Thyrocalcitonin, 116 ff., 131 ff.
 action mode, 119
 amino acid sequence (in swine), 116
 excessive production in thyroid medullary carcinoma, 133
 glycosaminoglycan synthesis and, 121
 hypercalcemia and, 122 ff.
 parathyroid carcinoma, 124
 -like activity in thyroid medullary carcinoma, 131
 Paget's disease and thyrotoxicosis, 122
 pseudohypoparathyroidism and, 103
 secretion in thyroid medullary carcinoma, 135
 thymic and parathyroid origin, 117
 Thyroid, 125 ff., 185 ff.
 cancer (*see* Cancer)
 DIHPPA in (in rat), 150
 disease, after Thorotrast, 167
 dysfunction, guanethidine for eye signs in, 174
 function
 T^3 uptake and, 155
 Tc^{99m} pertechnetate assessment, 160
 grafts, autologous and allogenic (in dog), 164
 hormones, 151 ff.
 adenyl cyclase and fatty acid (in rat), 152
 protein synthesis and, 151
 long-acting stimulator, and Graves' disease ophthalmopathy, 148
 lymphocytic infiltration, in thyrotoxicosis, 166
 nodules, and cancer, 190
 parafollicular cell ultrastructure (in cattle), 125
 release of ^{131}I -hormones, and vagus nerve (in dog), 153
 response to thyrotrophin stimulation, 186
 -stimulating antithyroid antibody (in rabbit), 147
 sulfonylureas and (in rat), 157
 Thyroiditis: lymphocytic, and diabetes, 389
 Thyrotoxic patients: and oxidative phosphorylation, 165
 Thyrotoxicosis, 170 ff
 calcitonin and, 122
 hypothyroidism and, congenital, 182
 lymphocytic infiltration of thyroid in, 166
 propranolol and ^{131}I in, 171
 stimulation, thyroid response to, 186
 therapy
 follow-up study, 170
 ^{131}I , delay in control of, 172
 Thyroxin, 157 ff.
 -binding globulin deficiency, in Turner's syndrome, 161
 growth hormone and insulin after,

in prediabetes, 206
 hypernatremia and, 52
 iodine, determination of, 158
 kidney, renin and aldosterone after, 266
 pancreaticoduodenal (in dog), 216
 protein binding of, and sulfonylureas (in rat), 157
 thyroid, autologous and allogenic (in dog), 164
 Triiodothyronine uptake and thyroid function, 155
 Tumors, 370 ff.
 ACTH-secreting, 372
 adrenal cortex, 258 ff
 corticosterone-secreting, 258
 dexamethasone-suppressible, 260
 carcinoid
 insulin-secreting bronchial, 365
 thyroid medullary carcinoma, 140
 extrapancreatic, and hypoglycemia, 368
 granulosa cell, 311
 islet cell, streptozotocin for, 370
 Krukenberg, gonadotrophin-dependent, 382
 "nonendocrine," and Cushing's syndrome, 371
 pineal, and endocrinopathy, 71
 pituitary
 cells secreting growth hormone (in rat), 18
 function tests in, 13
 pterygium colli in, 343
 sinus, from pineal region, 69
 thyroxin-binding globulin deficiency in, 161
 tumoral calcinosis and hyperphosphatemia, 115

U

Urine proinsulin in, 192
 Uterus
 hormone-releasing intrauterine devices, 316
 postpartum activity, suckling and ethanol, 38

V

Vagus nerve: and ^{131}I -hormones (in dog), 153
 Vasopressin, 9 ff.
 ACTH-secreting tumors and, 372
 diabetes insipidus and, 44
 hypothalamic, 55
 lysine, corticosteroids and growth hormone, 10
 pituitary-adrenal function and, 9
 release, hypernatremia and polydipsia, 52
 Ventriculoatrial shunt obstruction causing ADH inappropriate secretion, 59
 Vessels umbilical and placental, and prostaglandins, 302
 Virilization during pregnancy, Krukenberg tumor causing, 382
 Viruses: simian 40, and parathyroid hormone, 72
 Vitamin D, 111 ff.
 metabolism, and prednisone, 111
 rickets and (*see Rickets*)

W

Water
 drinking, 48 ff
 compulsive, 49
 diabetes insipidus and, 48
 transport, and ADH, 47

X

X-ray: childhood therapy, thyroid cancer after, 185

Y

Yttrium-90 therapy: of hyperthyroidism, hypopituitarism after, 183

Z

Zollinger-Ellison syndrome: case review, 364

INDEX TO AUTHORS

A

Abdel-Bari, Wagih, 131
 Abell, Murray R., 70
 Abrams, C A L., 30
 Abiamson, Eugene A., 238
 Abrisqueta, José Antonio,
 351
 Afifi, A K., 255
 Albeaux-Fernet, M., 183
 Albert, A., 327
 Albores-Saavedra, Jorge,
 379
 Alexander, F., 267
 Aljure, Fortunato, 145
 Allen, E H., 101
 Allen, Elizabeth, 23
 Amdisen, A., 163
 Anderson, V Elving, 362
 Anderrson, Bo, 359
 Andrada, Enia, 264
 Andrada, Juan A., 264
 Aponte, Gonzalo E., 265
 Arky, Ronald A., 238
 Askari, H. A., 33
 Atkins, Harold L., 160
 Aurbach, G D., 72, 119
 Aurbach, Gerald D., 87
 Avioli, Louis V., 111
 Axelrod, Julius, 61
 Azzopardi, J G., 371

B

Baker, David, 349
 Balsley, Maridee, 49
 Bank, S., 211
 Barbezat, G., 29
 Bar-Maor, Adoniram, 368
 Barr, Murray L., 346
 Bartier, Frederic C., 87,
 124
 Barwick, D. D., 257
 Baxter, Ellsmaree, 121
 Bayliss, R I S., 387
 Becker, Kenneth L., 168
 Bell, J. J., 30
 Bell T K., 77
 Ben-Bassat, Mina, 144
 Benedetti, Andrea, 204
 Bennett, Alan, 370
 Bennett, Leslie L., 197
 Benotti, Joseph, 158
 Berge, Kenneth G., 224
 Bergman, R A., 255
 Bernheim R., 183
 Bernstein, Lev M., 289
 Besser M I B., 282
 Best, John, 22
 Beslje, John, 69
 Bethune, John E., 262
 Bhainiager, Ranbir K., 61
 Bigazzi, Pier L., 264
 Bijvoet O J. M., 122
 Birge, Stanley J., 111
 Black, M. M., 135

Black, William C., III, 89
 Blackard, William G., 20,
 365
 Blizzard, R M., 386
 Block, Melvin A., 94
 Bobrov, Yuri F., 289
 Boden, G., 206
 Bodic, L., 140
 Bodic, M.-F., 140
 Bogden, Arthur E., 247
 Bohman, Yan V., 289
 Bormlin, N E., 291
 Bower, Bruce F., 326
 Bowers, C Y., 11
 Bowers, Cyril Y., 291
 Brackett, Newton C., Jr.,
 277
 Braunstein, Herbert, 130
 Brewer, H B., Jr., 116
 Brodie, B B., 152
 Bronsky, David, 102
 Brooks, R V., 311
 Brostoff, J., 10
 Brough, A Joseph, 339
 Brown, J B., 292, 323
 Brown, Michael, 370
 Buckle, R. M., 72
 Buckle, Richard M., 87
 Buhler, Ulrich K., 182
 Burckhardt, Dieter, 290
 Burditt, Anne F., 225
 Burger, H. G., 22, 292
 Burri, C., 187
 Byrd, J. Rogers, 306

C

Caird, F. I., 225
 Calhoun, David W., 313
 Camacho, Alviro M., 338
 Canterbury, Janet M., 85
 Capelli, John P., 265
 Capen, Charles C., 125
 Carpen, Eero, 67
 Carr, David H., 346
 Carter, Norman W., 112
 Casper, Julian, 144
 Cassidy, Carl E., 158
 Catt, K. J., 22, 292
 Cavalli-Sforza, L C., 28
 Cerasi, Erol, 359
 Chakmakjian, Zaven H.,
 262
 Chan, Moira M. W., 387
 Chan W Y., 46
 Cho, Sooja, 192
 Ceric, Ivan S., 17
 Clark, Gerald R., 349
 Clarke, B F., 228
 Clements, R S., Jr., 215
 Clewe, Thomas H., 316
 Cline, Robert E., 191
 Clubb, John S., 110
 Cocoris, John G., 348
 Cohen, Edwin L., 273
 Cohen, W. D., 312

Colachis, Sam C., Jr., 180
 Colwell, John A., 381
 Conn, J. W., 261
 Conn, Jerome W., 273
 Connor, Thomas B., 382
 Conte, F. A., 30
 Cooper, H. E., 312
 Cornblath, Marvin, 241
 Cort, J. H., 44
 Cowie, A T., 41
 Cowles, E B., 33
 Crane, C. W., 217
 Crombie A. L., 174
 Crome, L., 389
 Crooke, A. C., 325
 Cross, Harold E., 178
 Cuello, Carlos, 145
 Cullen, J. F., 228
 Cunliffe, W. J., 135
 Curry, Donald L., 197

D

Dahlback, Olle, 374
 Dahlberg, Bruno, 291
 Dale, Sidney L., 269
 Danowski, T. S., 201
 David, R., 272
 Davies, A G., 325
 Davies, Rosemary, 307
 Davis, Warren W., 249
 Dawber, Thomas R., 190
 Deckert, Torsten, 220
 Deftos, L. J., 72, 116
 Deftos, Leonard J., 87
 DeGroot, L. J., 165
 Deis, R P., 43
 de Kretser, D. M., 323
 De Moor, P., 254, 318
 De Moor, Pieter, 318
 Denef, Carl, 318
 Deribreux, J., 183
 Dexter, Richard N., 249
 Dhurandhar, Nina R., 365
 Dietzman, Ronald H., 216
 DiGiulio, Walter, 189
 Dilman, Vladimir M., 289
 Doe, Richard P., 137
 Donahower, George F., 138
 Donnell, George N., 24
 Doria-Medina, Marcelo,
 369
 Dorta, T., 187
 Doyle, Lee Lee, 316
 Draper, G. J., 225
 Drash, A., 33, 208
 Drill, Victor A., 313
 Drucker W., 272
 Drury, M. I., 387
 Dubois, Bonnie M., 43
 Duncan, L. J. P., 228
 Dunphy, J. Englebert, 364
 Dupont-Lecompte, J., 14
 Durán, Moises Espino, 379
 du Vigneaud, Vincent, 46
 Dyster-Aas, Kjell, 291

INDEX TO AUTHORS

E

- Eddleston A L W F , 370
 Edwards, J C , 370
 Egdahl, Richard H , 85
 Ehara, Yoichi, 287
 Eisenberg Eugene, 83
 Eisentraut, A M , 244
 Eisentraut Anna M , 245
 Eliel, Leonard P , 86
 Else, W , 13
 Engel, R H , 218
 Engelmann, Karl, 283
 Erdohazi Magda, 389
 Ertel Norman H , 58
 Espiner, Eric A , 9
 Evans J H , 323
 Exton John, 244
 Ezdinli, Ediz Z , 279

F

- Fahnenbach, M J , 218
 Faiman, Charles, 327 381
 Falck, Bengt, 142
 Falls, William F , Jr , 112
 Fanburg, Barry L , 178
 Faraldo, Celia, 265
 Fearing, Margery O , 328
 Feemster, John A , 216
 Fefer, Alexander, 205
 Fenton S S A , 77
 Field J B , 208
 Fillastre, J.-P , 50
 Finger, John E , 189
 Fink, C Joan , 195
 Finley, Sara C , 348
 Finley, Wayne H , 348
 Finster, Joseph L , 205
 Fisher, Edwin R , 201
 Fishman, Jack, 294
 Fitzpatrick, Michael E , 113
 Flanagan, Barry, 81
 Flouret George, 46
 Forsham, Peter H , 204 355
 Fossati, P , 14
 Frame, Boy, 94
 Franks, Robert C , 23
 Frantz, Andrew G , 36, 103
 Fraschini, F , 66
 Fraser, J R E , 121
 Fraser, R , 258
 Frasier, S Douglas, 24 335
 Freeman, Richard M , 328
 Frøyshov, Ingegerd, 56
 Fuchs, Anna-Riitta, 38
 Fujimura, Akira, 366

G

- Gabbay, Kenneth H , 214
 Gagliardino, J J , 19
 Gagne, R J A , 80
 Galante, I , 117, 135
 Gallagher, T F , 294
 Ganis, Frank M , 382
 Garces, L Y , 33, 208
 Garner, A , 166
 Garren, Leonard D , 249
 Gaston, Eugene A , 190
 Geenen, Joseph E , 47

- Geller, Jack, 334
 German James , 333
 Gibbs, J H , 386
 Gibson, Richard L , 130
 Gikas, Paul W , 189
 Giles C A , 258
 Gitelman H J , 75
 Gleason R E , 206
 Glick, S , 8
 Golani S , 272
 Goldberg M B , 345
 Goldberg, Martin , 71
 Goldman Allen S , 338
 Goldman, Leon , 364
 Golonka, Joseph E , 385
 Gomez-Acebo, Jose , 351
 Gomez-Peralta, Leopoldo , 369
 Gonzales-Angulo, Amador , 369
 Gonzalez D , 299
 Gonzalez-Licea, Agustin , 140
 Goodman, A David , 52, 136, 385
 Gordon, Gilbert S , 113
 Gordeeff, A , 140
 Gorden, Philip , 186
 Gorden Phillip , 194
 Gordon Stephen J , 269
 Graber, Alan L , 93
 Grasso, Sebastiano G , 355
 Gray, James H , 247
 Green Paul A , 224
 Greenblatt, Robert B , 305
 Greene, James A , Jr , 266
 Greene Laurence F , 223
 Griffen Max E , 53
 Grodsky Gerold M , 197, 204, 355
 Giromova E A , 271
 Groppe, A , 343
 Grumbach M M , 30
 Guay, F G , 97
 Gudmundsson T V , 117, 135
 Guillou J , 139

H

- Hadden D R , 171
 Hadley, William B , 236
 Hall, R , 135, 257
 Hall, Thomas C , 375
 Hamburger Joel I , 172
 Hamerton J L , 340
 Hamilton, J Richard , 286
 Hammond, William G , 283
 Hansen, J D. L , 29
 Hardy, Jules , 17
 Hargreaves, A W , 166
 Harrington Avery R , 55
 Harris, G S , 121
 Harris, John A , 47
 Harris, Virginia , 244
 Hartmann, William H , 140
 Hartog M , 387
 Harvey J C , 255
 Haugen, H N , 56
 Hawker, Charles , 74
 Hawley, W D , 11
 Hawrylko, Josephine , 86
 Hayes, Oscar J , 54
 Hayes, T. M , 233

- Hays, R L , 319
 Hazard, John B , 138
 Hedinger, Chi , 176
 Heidingsfelder, Sylvia A , 20
 Heinze Edward G , Jr , 94
 Heizer, William D , 96
 Heller, Alfred , 61
 Hellman, Leon , 294
 Hempelmann Louis H , 185
 Hendricks, S , 211
 Henkin R I , 105
 Henneman, Philip H , 52
 Herlant, M , 14
 Hermann Kate , 167
 Heishman, Jerome M , 157, 381
 Heitelendy, F , 357
 Heyns, W , 254, 318
 Heys, R F , 301
 Hienz, H A , 343
 Higgins, George A , Jr , 168
 Hillier, K , 302
 Hirano, Toshio , 287
 Hirsch, Jules , 361
 Hirson, C , 234
 Hoffman, David L , 327
 Hoffmann, J C , 63
 Hoffmann, Joan C , 65
 Hogbin, B M , 370
 Holecek, V , 44
 Hollander, Charles S , 178
 Horino, M , 357
 Horn R C , 377
 Hornbrook, John W , 106
 Horton, R , 310
 Howell Simon L , 195
 Hruby, Victor J , 46
 Hudgson, P , 135
 Hudson B , 323
 Huff, Thomas A , 213
 Humphrey, K. W , 296
 Hung, Wellington , 280
 Hurvitz, Richard J , 78
 Hynie, S , 152

I

- Idezuki Yasuo , 216
 Igarashi, Masao , 287, 304
 Ingvar, David H , 291
 Ireland, Anthony W , 106, 110
 Ireland J T , 228
 Irvine, W J , 155 387
 Ishii, Jun , 153
 Ismail, A A A , 320
 Iturzaeta, N F , 33

J

- Jackson, W P U , 211
 Jacobs, James Paul , 308
 Jacobs, Kenneth , 93
 Jaffe, Eleanor , 265
 Jaggar, Paul I , 9
 Jalan, K N , 100
 James, V H T , 10, 258
 Jarett, Leonard , 372
 Jansen, A P , 122
 Januska, Margaret M , 151
 Javid, Roulah , 279
 Jeffcoate, S L , 311

Jenkins, J S . 13
 Jensen, S Eskjaer, 163
 Joffe, B I , 211
 Johnson, Gerhard J , 302
 Johnson, Gordon, 286
 Johnson, H Keith, 229
 Johnston, I D A , 135
 Jones, Ava M , 244
 Joplin, G F , 135
 Joss E E., 27
 Jurado-Mendoza Juan, 369

K

Kadian, George, 172
 Kajinuma, Hiroshi, 198
 Kaneto, Akio, 198
 Kaplan, S L , 30
 Karam, John H , 204, 355
 Karim, S M M , 141
 143, 302
 Kastin, Abba J , 291
 Kaufman, Benjamin, 15
 Keating, F Raymond, Jr , 362
 Kelalis, Panayotis P , 223
 Keller, P , 211
 Kendall, John W , 260
 Kenny, F M . 33, 208
 Keutmann, H T , 116
 Keverne, E B , 330
 Kiamko, Rosario T , 102
 Kipnis, D M . 357
 Kipnis, David M . , 202,
 372
 Kirkham, K E , 350
 Kjellberg, Raymond N .
 36
 Kluman, Bernard, 36
 Kline, John E , 151
 Knaggs, G S , 41
 Knittle Jerome L , 361
 Kogut, Maurice D , 24
 Kolb, F O , 387
 Kolodny, Howard D , 231
 Konerding, Karsten, 157
 Koppel, Marcelo, 277
 Koßmann, Richard J , 58
 Kovaleva, Irina G , 289
 Kowalczyk, Richard S
 266
 Kowarski, Avinoam, 338
 Krakau, C E T , 291
 Kraus, M , 271
 Křeček, J , 271
 Krieger, D T , 8
 Krieger, H P , 8
 Krishna, G , 152
 Krylova, Natalya V , 289
 Kukolj, S , 75
 Kullander, Stig, 291
 Kuzuya, Takeshi, 198

L

Labow, Stanley S , 189
 Lary, Paul E , 195, 372
 LaDue John S , 290
 Laine, E , 14
 Lampe, Isadore, 70
 Landolt, R , 336
 Landon, J , 11, 258
 Langlands, A O , 167
 Jaragh, John H , 270

Laster, Leonard, 96
 Laufer, David P , 9
 Lawson, A A H , 174
 Lawton, Richard L , 328
 Lebovitz Harold E . 23,
 213
 Lee, James B . , 103
 Lee, Sook Won, 111
 Lemarchand-Beraud, Th .
 187
 Levey, Gerald S . , 186
 Levin, Howard S , 382
 Levine, Lawrence, 18
 Li, Choh Hao, 5
 Lillehei, Richard C . , 216
 Ling, Shun M , 24
 Linquette, L , 14
 Lisci-Garmilla, Andrés.
 369
 Ljungberg, Otto, 142
 Lohmar, Phoebe, 5
 London, D R , 311
 Longmire, William P , Jr .,
 164
 Loo, H , 183
 Loraine, J A , 320, 350
 Lubich, Warren P . , 113
 Luft, Rolf, 359
 Luntz, George R W N ,
 217
 Luse, Sarah A , 372

M

McCullagh, E P , 148
 McGeown, Mary G , 77
 McGrath, Philomena 7
 Mach, R. S , 274
 Machlin, L J . , 357
 Machová, A . , 44
 McIlwaine, C. L. K . , 100
 MacIntyre, I , 118, 135
 McKay, A M , 258
 McKenzie, J M , 147, 148
 McKusick, V A , 28
 McKusick, Victor A , 178
 MacNab, I , 97
 Madison, L L , 199
 Madsen, P H , 227
 Mahan, Clare M , 219
 Maher, Frank T , 281
 Mahoney, James H , 52
 Mangurten, Henry H , 241
 Manson, Gordon, 34
 Manson, Gordon A , 94
 Marble A . , 206
 Marks, V , 234
 Marks, Vincent, 239
 Martin, F I R , 210
 Martin, J. M , 19
 Martin, Luis G , 382
 Martin, T J . , 121
 Martini, L , 66
 Mashford, M L , 284
 Matsuda, Tamotsu, 366
 Matsumoto, Seiichi, 287,
 304
 Matthews, E W , 117
 Matthews, Mary J , 168
 Matthews, Robert J , 353
 Mattingly, D , 250
 Matz, Robert, 232
 Mayne, N , 222
 Mayuzumi, Ryusuke, 287
 Melby, James C , 269
 Melick, R. A , 121

Mellinger, Raymond C ,
 34
 Melvin, Kenneth E W ,
 133
 Merimee, T J . , 28
 Merimee, Thomas J . 358
 Mess, B , 66
 Meyer, John S , 127, 131
 Michael, R P , 330, 331
 Migeon, Claude J , 280
 338, 382
 Milgrom, Felix, 264
 Millard, F J C , 101
 Miller, M Clinton, III
 291
 Millet, D , 297
 Mintz, D , 33, 208
 Mintz, Daniel H . , 205
 Miyabo, Susumu, 366
 Moldavsky, Leon F , 53
 Molina, Rafael A , 305
 Montgomery, D. A. D ,
 171
 Moore, Robert Y , 61
 Morales, A. M , 377
 Morgenstern, Leon, 78
 Morris, R , 325
 Morton Donald L , 87
 Mösl, P . , 176
 Muenter, Manfred D . , 108
 Müller, Th , 250
 Murakami, Mototaka, 366
 Murray, P , 29
 Mürset, Gertrud, 336
 Murray-Lyon, I. M , 370
 Musset, R , 297
 Mussini-Montpellier, J ,
 139

N

Nagaoka, Yu, 304
 Nakao, Kiku, 198
 Nassim, J. R . , 101
 Neale, Francis C , 106, 110
 Neisler, J , 310
 Nelson, Don H , 262
 Nelson, J Kenneth, 358
 Nestel, P J , 352
 Netter, A . , 297
 Neumann, F , 322
 Newton, Michael A , 270
 Niall, H D , 116
 Nichols, George, Jr . , 81
 Nissan, Shemuel, 368
 Ney, Robert L , 249
 Nixon, William P , 277
 Nolan, J , 228
 Nugent, Charles A , 376
 Nusynowitz, M L , 388

O

Oakey, R. E . , 301
 Ochi, Yukio, 182
 Ogata, Etsuro, 74
 Ogura, Joseph H , 173
 Ohneda, Akira, 244, 245
 Okinaka, Shigeo, 153
 Oliver, M. F , 228
 Olsen, T . , 163
 O'Neal, Lawrence W . , 372
 O'Reilly, I. G . , 211
 Oreopoulos, D , 77
 O'Riordan, J. L. H . , 119

INDEX TO AUTHORS

O'Sullivan, John B. 214
219
Oudea, P. 139
Owens, Guy 279

P

Pak, Charles Y C 124
Palmieri Genaro M A ,
86
Papanicolaou, A D 350
Parada Eugenio, 245
Parilla, Roberto 351
Parker, Mary L , 18
Pastan, Ira 194
Paullada Juan Jose 369
Pearson Carl M 180
Pearson M J , 210
Pearson, O H 299
Peart, W S 258
Pedersen, Kaj O 98
Pelissier, C 297
Peno Samuel, 158
Penrose, L S , 342
Perley, Michael J , 202
Perrin, D 139
Perzik, Samuel L 78
Pfau A , 282
Pimstone B L , 29
Pittman Constance S
348
Plunkett, Earl R 346
Pocidalo, J -J 50
Posen, Solomon, 106, 110
Posner, Jerome B , 58
Potts, J T , Jr , 72, 116
Potts, John T , Jr , 87
Poulsen Jacob E 220
Powers Samuel R , 136
Pozuelo, Vincente, 351
Prem, K A , 312
Prineas, John, 257
Prockop, L D , 215
Prunty, F T G , 302, 311
Pushett, Jules B , 71

Q

Quijano-Narezo, Manuel,
369
Quinlan J J , 42

R

Rabinowitz, D , 28
Rabinowitz, David, 358
Rabson, A S , 72
Radde, Ingeborg C , 286
Ramos, Emilio, 236
Randall, Russell E , Jr ,
277
Rasmussen, Howard, 74
Rawson, Annette, 258
Rector, Floyd C , Jr , 112
Reeve, Thomas S 110
Refetoff, Samuel, 161
Reiss, Eric, 85
Reiter, R. J , 63
Reiter, Russel J , 65
Rhodes, P. 311
Richards, Powell, 160
Richardson, Claude E ,
349
Riggi, S J , 218
Riggs, Lamar, 358

Ruse Dag 227
Rimoin D L 28
Rimoin David L 178
Rinne, U K 252
Rivers, R P A 389
Robert M 274
Roberts Patricia A 151
Roberts Stuart S , 241
Roemans Pierre, 182
Roisman Gunne 224
Rosenblatt J S 39
Rosengren Evald 142
Ross, F 388
Ross Livia 384
Rossin Herbert W , 172
Roth, Jesse 194
Roth, L L 39
Rovner David R , 273
Rubenstein Arthur H
192
Rubin P H , 63
Rubin Peter H 65
Ryan, Robert J , 327, 381

S

Saayman, G S , 331
Saenger Eugene L 170
Sahebjami, Hamid, 95
Salans Lester B , 361
Salet J , 50
Salick Allen I 180
Salinas, Ezequiel D , Jr ,
241
Samaan, N , 299
Samaha F J , 165
Samols, E , 234
Samols Ellis, 239
Sandler M , 141, 143
Sarosi George, 137
Sato, Gordon H 18
Savin, Ronald C , 329
Scarsh, Laura, 387
Schally, A V , 11
Schally, Andrew V , 291
Schatz, L , 211
Scheinberg, Labe C , 58
Schou, M , 163
Schteingart, D E , 261
Schultz, Robert B 358
Schumacher, O Peter, 138
Schwartz, Irving L , 44
Scott, J S , 301
Scully, A L , 345
Sebaoun, M , 297
Seemann, N. , 91
Segar, William E , 49
Seifert, G , 91
Seip M , 25
Seldin, Donald W , 112
Selenkow, Herbert A , 161
Shafey, Omar A , 164
Shafrir, Eleazar, 368
Shames, Jay M , 365
Shanks, R G , 171
Shanon, Elijah, 144
Shearman Rodney P , 315
Sheikhislam, Bagher M ,
23
Shelley, Elizabeth, 384
Sheps, Sheldon G , 281
Sherman, Lawrence, 231
Shields, Thomas W , 381
Shingleton, William W ,
191

Shintani, Akira, 36
Shibusu Hisao, 74
Shizume, Kazuo 153
Shuster, S , 135
Silverberg, A , 8
Simon, William H 241
Simons Barbara J 48
Simpson, Ronald G 204
Simson Laurence R 70
Siperstein M D 199
Sisson James C , 149
Slatopolsky Eduardo 115
Sloop, Perry R , Jr , 260
Smith Fred G , Jr 335
Smith George W II 124
Sode, Jonas 186
Sodestrom, Nils 224
Soeldner, J S 206
Soergel Konrad H 47
Sokal, Joseph E 279
Sokoloff Louis 151
Solomon I L , 345
Soltan Hubert C 346
Sorm, F , 44
Sorrentino, S D 63
Soyannwo M A O 77
Spark Richard F 269
Spathis, G S 302
Spellacy, W N 312
Sprague, Randall G 224
Stanbury, John B , 182
Standeven, Ruth M , 155
Steeno O 254 318
Steinbach, H L 345
Steinberg, Alfred D , 177
Steiner, Alton L 136
Steiner, Donald F , 192
Steiner, H , 201
Steiner, Hugo 374
Stempfel, Robert S , Jr
23
Stephens, Charles L , 130
Stephens, Charles O , 54
Stephenson, John N 34
Stevko, Richard M , 49
Stitch, S R 301
Stockei, W W 165
Stocks, A E 210
Strang, R R 181
Streeto James M , 103
Strott, Charles A , 376
Summerskill W H J
362
Surks, Martin I , 150
Susen, A 33

T

Taft, H P , 323
Tashjian, Armen H Jr
18, 103, 133
Taubin, Howard, 232
Taylor, Andrew L , 205
Taylor, Keith W , 370
Telfer, Mary A 349
Thoma George E , 170
Thomas, M Lea, 302
Thompson, Genevieve, 241
Thorn, George W , 9, 276
Timonen Sakari, 67
Tindal, J. S. , 41
Tompkins, Edythalena A
170
Trygstad, O , 25
Trygstad, Olav, 6
Tse, A , 117

INDEX TO AUTHORS

409

Iucci Joseph R 9
 Jurev A 41
 Tyler Christine 250
 Tyler Frank H 376

U

Unger R H 199
 Unger Roger H 244, 245
 Utley Joseph R 89

V

Valtin Heinz 55
 Valverde Isabel 244
 van Baelen H 318
 Van Demark N L 319
 Vander Aithui J 266
 Vander John B 190
 Van Dei Hagen C B 25
 van der Sluys Veer J 122
 Vavia I 44
 Vazquez A M 208
 Vega de Rodriguez Gloria
 Vela P 314
 Vela Cesar A 290
 Verster Floris de Balbian
 Veverbrants Egils 238
 Veyrat R 274
 Vink A I 211

Volpert Eugene M 150
 von Beiswoldt-Walliaue
 R 322

W

Wagner Gorm 38
 Wahner Heinz W 145
 Waldenstrom Jan 374
 Waldstein Sheldon S 102
 Walser A 250
 Walter Roderich 43
 Waishaw Andrew L 96
 Waterhouse Christine 229
 Watson A J 257
 Way Lawrence 364
 Weaver J A 171
 Wegienka Laurence C
 Weinbach Sandra 150
 Weinstein B 242
 Welt L G 75
 Wesson Laurence G Jr
 Whalen George E 47
 Whelton M J 234
 Whisnant Jack P 108
 Widmer B 380
 Wiens Ruth G 346
 Wilber John F 115
 Williams E D 117, 135
 141, 143, 371, 377
 Williams H S 234

Williams Roger 370
 Wills Michael R 124
 Winegrad A I 215
 Winnacker John L 168
 Wise Burton L 59
 Witebsky Linest 264
 Woodhouse N J Y 117,
 135

Woods C J 253
 Wurtman Richard J 61

Y

Yamasaki Makoto 287
 Yaneva H 297
 Yardley John H 140
 Yasumura Yoshihiko 18
 Yen S C C 299, 314
 Yendt F R 80, 97
 Yokota Naomi 287
 Young David M 125
 Young Donald A 195

Z

Zacest R 284
 Zahnd G R 27
 Zaoral M 44
 Zisman Elias 87
 Zogg C A 319
 Zorilla Eduardo 236
 Zumoff Barnett 294