

Merck & Co., Inc.  
Form 11-K  
June 19, 2018

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM 11-K

FOR ANNUAL REPORTS OF EMPLOYEE STOCK PURCHASE, SAVINGS AND SIMILAR PLANS

Pursuant to Section 15(d) of the Securities Exchange Act of 1934

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2017

OR

TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number: 1-06571

Employer Identification Number: 22-1918501

Plan Number: 004

MSD EMPLOYEE STOCK PURCHASE AND SAVINGS PLAN

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(Full title of the plan)

MERCK & CO., INC.

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(Name of issuer of the securities held pursuant to the plan)

2000 Galloping Hill Road

Kenilworth, New Jersey 07033

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(Address of principal executive office)

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MSD Employee Stock Purchase and Savings Plan  
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\* Other schedules required by Section 2520.103-10 of the Department of Labor Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 are omitted because they are not applicable.

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Report of Independent Registered Public Accounting Firm

To the Administrator and Plan Participants of MSD Employee Stock Purchase and Savings Plan

Opinion on the Financial Statements

We have audited the accompanying statements of net assets available for benefits of MSD Employee Stock Purchase and Savings Plan (the “Plan”) as of December 31, 2017 and 2016 and the related statement of changes in net assets available for benefits for the year ended December 31, 2017, including the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2017 and 2016, and the changes in net assets available for benefits for the year ended December 31, 2017 in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Plan’s management. Our responsibility is to express an opinion on the Plan’s financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Plan in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits of these financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Supplemental Information

The supplemental schedule of assets (held at end of year) as of December 31, 2017 has been subjected to audit procedures performed in conjunction with the audit of the Plan’s financial statements. The supplemental schedule is the responsibility of the Plan’s management. Our audit procedures included determining whether the supplemental schedule reconciles to the financial statements or the underlying accounting and other records, as applicable, and performing procedures to test the completeness and accuracy of the information presented in the supplemental schedule. In forming our opinion on the supplemental schedule, we evaluated whether the supplemental schedule, including its form and content, is presented in conformity with the Department of Labor’s Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. In our opinion, the supplemental schedule is fairly stated, in all material respects, in relation to the financial statements as a whole.

/s/ PricewaterhouseCoopers LLP

June 19, 2018

We have served as the Plan's auditor since 2002.

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MSD Employee Stock Purchase and Savings Plan  
 Statements of Net Assets Available for Benefits

	December 31,	
(in thousands)	2017	2016
Assets		
Investments		
Investment in Master Trust, at fair value	\$411,601	\$420,259
Receivables		
Employer contributions	115	90
Participant contributions	372	300
Notes receivable from participants	10,901	11,732
Total receivables	11,388	12,122
Net assets available for benefits	\$422,989	\$432,381

The accompanying notes are an integral part of these financial statements.

MSD Employee Stock Purchase and Savings Plan  
Statement of Changes in Net Assets Available for Benefits

(in thousands)	Year Ended December 31, 2017
Additions to net assets attributed to	
Investment income	
Plan interest in Master Trust investment income	\$54,096
Interest income on notes receivable from participants	583
Contributions to the Plan	
By participants	18,474
By employer	5,466
Total contributions	23,940
Transfers in	239
Total additions	78,858
Deductions from net assets attributed to	
Benefits paid to participants	(41,790 )
Transfers out	(46,460 )
Total deductions	(88,250 )
Net decrease	(9,392 )
Net assets available for benefits	
Beginning of year	432,381
End of year	\$422,989

The accompanying notes are an integral part of these financial statements.

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MSD Employee Stock Purchase and Savings Plan  
Notes to Financial Statements

1. Description of Plan

The following description of the MSD Employee Stock Purchase and Savings Plan (the “Plan”) provides only general information. Participants should refer to the Plan document for a more complete description of the Plan’s provisions.

General

The Plan is designed to provide a systematic means of saving and investing for the future as well as an easy and economical way for employees to become shareholders of Merck & Co., Inc. (“Merck” or the “Company”). Generally, any regular full time, part-time, or temporary employee, who is a U.S. resident covered by a collective bargaining agreement providing for participation in this Plan as defined by the Plan document, is eligible to participate in the Plan on or after their date of hire or as otherwise provided pursuant to the applicable collective bargaining unit agreement. Merck is the Plan sponsor (the “Sponsor”).

Participants direct the investment of their contributions into any fund investment option available under the Plan, including Merck common stock. At December 31, 2017, the Plan offered a three-tiered approach to investing:

- \* Retirement Portfolios - a custom set of target date retirement funds;
  - \* Core Funds - a selection of investment options (active and passive) that span a range of asset classes;
  - \* Fidelity Brokerage Link® - a self-directed brokerage account that provides access to more than 12,000 mutual funds.
- The Plan is administered by management committees appointed by the Company’s Chief Executive Officer, the Compensation and Benefits Committee of the Board of Directors of Merck or their delegates. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (“ERISA”).

Master Trust

The assets of the Plan are maintained, for investment purposes only, on a commingled basis with a portion of the MSD Puerto Rico Savings & Security Plan (the “Puerto Rico Plan”) and all of the assets of the Merck US Savings Plan and the C3i Solutions 401(k) Plan (formerly the Telerx Marketing, Inc. 401(k) Plan) in a single master trust (the “Master Trust”). The plans do not own specific Master Trust assets but rather maintain individual beneficial interests in such assets.

The portion of Master Trust assets allocable to each plan is based upon the participants’ account balances within each plan. Investment income for the Master Trust is allocated to each plan based on the relationship of each plan’s beneficial interest in the Master Trust to the total beneficial interest of all plans in the Master Trust.

Contributions

Participants may contribute up to 25% of their base pay on a before-tax basis and up to 10% of base pay on an after-tax basis to the Plan, but the total of the before-tax and after-tax contributions cannot exceed a total of 25% of base pay. However, before-tax contributions cannot exceed the statutory limit (\$18,000 in 2017). Upon reaching the statutory elective deferral limit, the participant may elect to suspend contributions for the remainder of the year or elect to continue on an after-tax basis.

In addition, the Company makes matching contributions of \$0.65 for every \$1.00 of an employee's contributions, up to 6% of such employee's base pay (maximum match is 3.90% of base pay) per pay period (to the statutory limit). The combination of before-tax contributions, after-tax contributions and Company matching contributions may not exceed the statutory limit (\$54,000 in 2017). Participant and Company matching contributions are invested according to a participant’s elections.

Age 50 and above — In addition, the Plan permits unmatched before-tax “catch-up contributions” of up to the statutory limit (\$6,000 in 2017) by participants who are at least age 50 by year-end.

Participant Accounts

Each participant's account is credited with the participant's contributions, the Company's contributions and an allocation of Plan earnings. The allocation is based on participants' account balances, as defined in the Plan document.

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MSD Employee Stock Purchase and Savings Plan  
Notes to Financial Statements

Vesting

Participants are immediately vested in their contributions, all Company matching contributions, plus actual earnings thereon.

Notes Receivable from Participants

Participants may borrow from their account balances with interest charged at the prime rate plus 1%. Loan terms range from one to five years for a short-term loan or up to thirty years for the purchase of a primary residence and bear interest at rates that range from 4.25% to 10.50%. The minimum loan is \$500 and the maximum loan is the lesser of (i) \$50,000 less the highest outstanding loan balance(s) during the one year period prior to the new loan application date, or (ii) 50% of the participant's account balance less any current outstanding loan balance(s) and defaulted loan amounts. Principal and interest is paid ratably through payroll deductions. Loan terms are grandfathered into the Plan in accordance with the legacy plan guidelines, including loan terms for participants that transferred into the Plan from a legacy plan.

Payment of Benefits

Participants are entitled to receive automatic, voluntary, in-service (which include hardship withdrawals), or mandatory distributions as provided in the applicable Plan provisions.

Other Matters

Transfers in and out during 2017 relate to transfers between the Plan and the Merck US Savings Plan for employees who changed their status during the year.

2. Summary of Accounting Policies

Basis of Accounting

The accompanying financial statements are prepared on the accrual basis of accounting.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and changes therein, and disclosure of contingent assets and liabilities at the date of the financial statements. Management believes that these estimates are adequate. Actual results could differ from those estimates.

Investment Valuation and Income Recognition

All investments are recorded at fair value in the accompanying financial statements. Valuation of investments of the Plan represents the Plan's allocable portion of the Master Trust. The Plan's investment in the Master Trust is stated at fair value and is based on the beginning of year value of the Plan's interest in the Master Trust plus actual Plan contributions and allocated investment income less Plan distributions, allocated investment losses and allocated expenses.

Purchases and sales of securities are recorded on a trade-date basis. Dividend income is recorded on the ex-dividend date. Interest income is recorded as earned. Realized gains and losses from security transactions are reported on the average cost method.

Notes Receivable from Participants

Notes receivable from participants are measured at their unpaid principal balance plus any accrued but unpaid interest. Delinquent participant loans are reclassified as benefit payments based upon the terms of the Plan document. No allowance for credit losses has been recorded as of December 31, 2017 and 2016.

Contributions

Employee and Company matching contributions are recorded in the period in which the Company makes the payroll deductions from the participants' earnings.

Payment of Benefits

Benefits are recorded when paid.



MSD Employee Stock Purchase and Savings Plan  
Notes to Financial Statements

Expenses

The Plan's administrative expenses are generally paid by the Company. Inactive participants pay an annual recordkeeping fee from their account balance.

Recently Issued Accounting Standards

In February 2017, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2017-06, Plan Accounting: Defined Benefit Pension Plans (Topic 960), Defined Contribution Pension Plans (Topic 962), Health and Welfare Benefit Plans (Topic 965): Employee Benefit Plan Master Trust Reporting. ASU No. 2017-06 requires the plan's interest in the master trust and the change in that interest to be presented in separate line items in the statement of net assets available for benefits and the statement of changes in net assets available for benefits, respectively; it also requires disclosure of: the total master trust investment amounts by general type and the dollar amount of the plan's interest in each general type of investment, the master trust's other assets and liabilities and the dollar amount of the plan's interest in each balance, and the net appreciation/(depreciation) in the fair value of the investments of the master trust and investment income exclusive of such net appreciation/(depreciation); additionally, it requires a description of the basis used to allocate net assets and total investment income to the plan, including the plan's percentage interest in the master trust as of the date of each statement of net assets available for benefits presented; lastly, it removes investment disclosures about 401(h) account assets to be provided in health and welfare benefit plan financial statements. ASU No. 2017-06 is effective for fiscal years beginning after December 15, 2018, with early application permitted. The Plan Sponsor is currently evaluating the impact on the Plan of adopting ASU No. 2017-06.

Risks and Uncertainties

The Plan provides for various investment options in investment securities. Investment securities, in general, are exposed to various risks and may decline in value for a number of reasons, including changes in prevailing interest rates and credit availability, increases in defaults, increases in voluntary prepayments for investments that are subject to prepayment risk under normal market conditions, widening of credit spreads and overall market volatility. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the Statements of Net Assets Available for Benefits.

3. Related-Party Transactions

Contributions are held and managed by Fidelity Management Trust Company ("Fidelity" or the "Trustee"), which invests cash received, interest and dividend income and makes distributions to the participants. The Trustee also administers the participants' payment of interest and principal on the notes receivable from participants. These transactions qualify as permitted party-in-interest transactions.

Certain Plan investments are shares of registered investment companies (mutual funds) and common/collective trusts managed by the Trustee. Fidelity is the trustee as defined by the Plan and, therefore, these transactions qualify as party-in-interest transactions. The total market value of the Plan's allocated portion of the investments managed by the Trustee was \$26.1 million and \$30.4 million at December 31, 2017 and December 31, 2016, respectively. During 2017, the Plan's allocated portion of interest and dividends, realized gains and unrealized gains from investments managed by the Trustee was \$0, \$903,351 and \$430,008, respectively.

Merck also is a party-in-interest to the Plan under the definition provided in Section 3(14) of ERISA. Therefore, Plan transactions of Merck common stock qualify as party-in-interest transactions. The market value of the Plan's allocated portion of the investments in Merck common stock was \$73.4 million and \$91.7 million at December 31, 2017, and December 31, 2016, respectively. During 2017, the Plan's allocated portion of dividends, realized gains and unrealized losses from Merck common stock was \$2.6 million, \$806,994 and (\$3.7) million, respectively. The Plan's allocated portion of purchases and sales of Merck common stock during 2017 was \$2.6 million and \$7.3 million, respectively.

4. Plan Termination

Although it has not expressed any intent to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to the provisions of ERISA. Upon termination of the Plan, each participant thereby affected would receive the entire value of his or her account as though he or she had retired as of the date of such termination.

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MSD Employee Stock Purchase and Savings Plan  
Notes to Financial Statements

#### 5. Tax Status

The Plan obtained a tax determination letter from the Internal Revenue Service (“IRS”) dated February 8, 2018, indicating that the Plan had been designed in accordance with applicable sections of the Internal Revenue Code (“IRC”). The Sponsor believes that the Plan is designed and currently operates in compliance with the IRC. Therefore, no provision for income taxes has been made.

Accounting principles generally accepted in the United States of America require Plan management to evaluate tax positions taken by the Plan and recognize a tax liability (or asset) if the Plan has taken an uncertain position that more likely than not would not be sustained upon examination by the IRS. The Plan administrator has analyzed the tax positions taken by the Plan and has concluded that, as of December 31, 2017 and 2016, there are no uncertain tax positions taken or expected to be taken that would require recognition of a liability (or asset) or disclosure in the financial statements. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress. The Plan administrator believes it is no longer subject to income tax examinations for years prior to 2014.

#### 6. Master Trust

The Plan had a 4.1% and 4.8% interest in the Master Trust at December 31, 2017 and December 31, 2016, respectively. The net assets of the Master Trust are as follows:

	December 31,	
(in thousands)	2017	2016
Registered investment companies (mutual funds)	\$1,366,269	\$1,250,571
Common/collective trusts	5,602,714	4,717,867
Fixed income securities	253,182	203,933
Self-directed brokerage accounts	81,245	43,922
Merck common stock	843,697	927,528
Other common stocks	1,870,944	1,600,136
Accrued interest and dividends	10,195	10,196
Other net assets/(liabilities)	(23,549 )	(29,057 )
	\$10,004,697	\$8,725,096

Total investment income of the Master Trust for the year ended December 31, 2017, is as follows:

	Year-Ended December 31, 2017
(in thousands)	
Investment income, net	
Interest and dividends	\$70,015
Net appreciation	1,417,969
 Total investment income	 \$1,487,984

MSD Employee Stock Purchase and Savings Plan  
Notes to Financial Statements

7. Fair Value Measurements – Master Trust

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Entities are required to use a fair value hierarchy that maximizes the use of observable inputs and minimizes the use of unobservable inputs when measuring fair value. There are three levels of inputs that may be used to measure fair value:

Level 1 – Quoted prices in active markets for identical assets or liabilities. The Master Trust's Level 1 investments primarily include registered investment companies (mutual funds), self-directed brokerage accounts and common stocks.

Level 2 – Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. The Master Trust's Level 2 investments primarily include investments in certain fixed income investments such as government and agency obligations, corporate obligations and mortgage and asset-backed securities.

Level 3 – Unobservable inputs that are supported by little or no market activity and that are financial instruments whose values are determined using pricing models, discounted cash flow methodologies, or similar techniques, as well as instruments for which the determination of fair value requires significant judgment or estimation. The Master Trust did not hold any Level 3 investments at December 31, 2017 and 2016.

If the inputs used to measure the financial assets and liabilities fall within more than one level described above, the categorization is based on the lowest level input that is significant to the fair value measurement of the instrument. There have been no changes in the valuation methodology used at December 31, 2017 and 2016. The policy of the Master Trust and the Plan is to recognize transfers between levels at the end of the reporting period. There were no transfers between Levels 1 and 2.

Within the Master Trust, investments are recorded at fair value as follows:

Registered Investment Companies (Mutual Funds)

Registered investment companies (mutual funds) are valued at their respective net asset values. The net asset values are typically determined by the fund at the close of regular trading. Investments in registered investment companies (mutual funds) generally may be redeemed daily.

Common/Collective Trusts

The common/collective trusts are valued at their respective net asset values, as a practical expedient. The fair value of investments in the common/collective trusts are determined by their trustee. The Master Trust's investments in common/collective trusts generally may be redeemed daily.

Fixed Income Securities

Fixed income securities, including U.S. government and agency obligations, corporate obligations and mortgage and asset-backed securities, are generally valued on the basis of valuations furnished by a pricing service approved by the Trustee or at fair value as determined in good faith by the Trustee and the Company. The Trustee has the discretionary authority to hire a pricing service to determine valuations using methods based on current market transactions, prices for comparable securities and various relationships between securities which are generally recognized by institutional traders.

Self-Directed Brokerage Accounts

Self-directed brokerage accounts are comprised of mutual funds which are valued at the closing price reported in the active market in which the securities are traded.

Common Stocks

Common stocks, for which market quotations are readily available, are generally valued at the last reported sales price on their principal exchange on the valuation date, or official close price for certain markets. If no sales are reported for that day, investments are valued at the more recent of (i) the last published sale price or (ii) the mean between the last reported bid and asked prices for long positions, or at fair value as determined in good faith by the Trustee and the Company.

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MSD Employee Stock Purchase and Savings Plan  
Notes to Financial Statements

Investments Measured at Fair Value

Investments measured at fair value as of December 31, 2017 are summarized below:

December 31, 2017

Fair Value Measurements Using

Quoted Prices In Active Markets (in thousands)	Significant		Total
	Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
Identical Assets (Level 1)			
Investments in the Master Trust			
Registered Investment Companies	\$ -	\$ -	\$ 1,366,269
Fixed Income Securities	253,182	-	253,182
Self-directed Brokerage Accounts	-	-	81,245
Merck Company Stock	-	-	843,697
Other Company Stocks	-	-	1,870,944
Investments measured within the fair value hierarchy	\$ 4,162,155	\$ 253,182	\$ -

Common/Collective Trusts measured at NAV practical expedient <sup>(1)</sup>	\$5,602,714
Investments at fair value	\$10,018,051

<sup>(1)</sup> Certain investments that were measured at net asset value (NAV) per share or its equivalent have not been classified in the fair value hierarchy. The fair value amounts presented in this table also do not include the Master Trust's accrued interest and dividends or other net liabilities.

MSD Employee Stock Purchase and Savings Plan  
Notes to Financial Statements

Investments Measured at Fair Value

Investments measured at fair value as of December 31, 2016 are summarized below:

December 31, 2016

Fair Value Measurements Using

Quoted Prices In Active Markets (in thousands)	Significant		Total
	Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
Identical Assets (Level 1)			
Investments in the Master Trust			
Registered Investment Companies	\$ 1,250,571	\$ -	\$ 1,250,571
Fixed Income Securities	203,933	-	203,933
Self-directed Brokerage Accounts	43,922	-	43,922
Merck Company Stock	927,528	-	927,528
Other Company Stocks	1,600,136	-	1,600,136
Investments measured within the fair value hierarchy	\$ 3,822,157	\$ 203,933	\$ 4,026,090

Common/Collective  
Trusts  
measured  
at  
NAV  
practical  
expedient  
(1)

\$4,717,867

Investments  
at  
fair  
value

\$8,743,957

(1) Certain investments that were measured at net asset value (NAV) per share or its equivalent have not been classified in the fair value hierarchy. The fair value amounts presented in this table also do not include the Master Trust's accrued interest and dividends or other net liabilities.

#### 8. Subsequent Events

The Plan has evaluated subsequent events through the date the financial statements were issued. On January 1, 2018, \$30,230,836 was transferred from the Plan into the Merck US Savings Plan.

MSD Employee Stock Purchase and Savings Plan  
 Schedule H, Line 4i - Schedule of Assets (Held at End of Year)  
 December 31, 2017

Schedule H

(a)	(b)	(c)	(d)	(e)
	Identity of Issuer, Borrower, Lessor or Similar Party	Description of Investment Including Maturity Date, Rate of Interest, Collateral, Par or Maturity Value	Cost	Current Value
**	Master Trust	Investment in Master Trust	***	\$411,601,266
*	Notes receivable from participants	Interest rates ranging from 4.25% to 10.5% and with maturities through 2047		\$10,901,294
		Total		\$422,502,560

\* Denotes a party-in-interest to the Plan.

\*\* There are certain investments within the Master Trust that are party-in-interest.

\*\*\* Cost information not required to be presented for participant directed investments.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the Plan) have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

MSD Employee Stock Purchase and  
Savings Plan

By: /s/ Mark E. McDonough  
Mark E. McDonough  
Senior Vice President and Treasurer  
June 19, 2018

EXHIBIT INDEX

Exhibit Number	Document	Page
23	Consent of Independent Registered Public Accounting Firm	14